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0001
1
              UNITED STATES DISTRICT COURT
 2
           FOR THE EASTERN DISTRICT OF NEW YORK
 3
    - - - - - - - - - - x
 4
   THE NATIONAL ASBESTOS
    WORKERS MEDICAL FUND, et al.,
 5
                       Plaintiffs,
                                      Case No.
                                  : 98 Civ. 1492 (JBW)
 6
    vs.
 7
    PHILIP MORRIS, INC., et al.,
 8
                      Defendants.
    - - - - - - - - x
 9
10
    BLUE CROSS and BLUE SHIELD of
    NEW JERSEY, et al.,
11
                       Plaintiffs,
12
                                      Case No.
                                    98 Civ. 3287 (JBW)
    vs.
13
    PHILIP MORRIS, INC., et al.,
14
                      Defendants,
    - - - - - - - - x
15
16
     Videotape Deposition of DAVID T. SCHEFFMAN, PH.D.
17
                    Washington, D.C.
18
19
                  Thursday, April 6, 2000
20
    Reported by: Susan D. Ashe, RMR
21
22
0002
1
2
 3
 4
5
6
7
8
                         Thursday, April 6, 2000
                         9:44 a.m.
9
10
11
12
    Videotape Deposition of DAVID T. SCHEFFMAN, PH.D.,
    held at the offices of:
13
14
15
16
        Dewey Ballantine LLP
17
         1775 Pennsylvania Avenue, N.W.
18
         Washington, D.C. 20006
19
20
21 Pursuant to notice, before Susan D. Ashe, RMR, a
22 Notary Public of the District of Columbia.
0003
1
    APPEARANCES:
 2
 3 For the Plaintiffs, The National Asbestos Workers
 4 Medical Fund, et al.:
 5 Law Offices of Peter G. Angelos
 6
        One Charles Center
```

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         New York, New York 10019-6092
         (212) 259-7099
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        HEATHER K. McDEVITT, ESQUIRE
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20
21
22
0004
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         PETER BEAKLEY, ESQUIRE
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         AMY K. PHILLIPS, ESQUIRE
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18
19
20
21
22
0005
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    BY: JOHN B. WILLIAMS, ESQUIRE
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         WILLIAM M. BAILEY, ESQUIRE
 8
9
    ALSO PRESENT: David E. Minken, Videographer
10
11
12
13
14
15
16
17
18
19
20
21
22
0006
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1
                   C O N T E N T S
 2
 3
 4
    EXAMINATION OF DAVID T. SCHEFFMAN, PH.D.:
                                                   PAGE:
 5
 6
    BY MR. ANGLAND:
                                                       9
 7
    BY MR. MINTZER:
                                                     323
 8
9
10
                          EXHIBITS
11
12
    Scheffman Exhibit No. 1, Blue Cross/Blue Shield
    Report of Professor David T. Scheffman, Ph.D......7
13
    Scheffman Exhibit No. 2, Listing of Articles by
14
15
    Scheffman.....98
16
    Scheffman Exhibit No. 3, The National Asbestos
17
    Workers Medical Fund, et al., Report of
    Professor David T. Scheffman, Ph.D......303
18
    Scheffman Exhibit No. 4, Two Reliance Lists for
19
20
    21
22
0007
1
                    PROCEEDINGS
2
                     (Scheffman Exhibit Number 1 was
 3
                marked for identification.)
 4
                    VIDEOGRAPHER: In the United States
    District Court, Eastern District of New York, in the
 5
    matter of National Asbestos Workers Medical Fund, et
 6
 7
    al., versus Phillip Morris, Incorporated, et al., and
    Blue Cross and Blue Shield of New Jersey,
 8
9
    Incorporated, et al., versus Philip Morris,
10
    Incorporated, et al., Case Nos. 98-CV-1492 (JBW) and
11
    98-CV-3287 (JBW).
12
                     This is the videotaped deposition of
    David T. Scheffman, Ph.D., taken this day, the 6th of
13
14
    April 2000, at the offices of Dewey Ballantine in
15
    Washington, D.C.
16
                     At this time I would ask counsel to
17
    identify themselves and state whom they represent.
18
                    MR. ANGLAND: Joseph Angland,
    representing the plaintiffs in the Blue Cross action.
19
                    MS. McDEVITT: Heather McDevitt,
20
21
    representing the plaintiffs in the Blue Cross action.
22
                     MR. MINTZER: Glenn Mintzer, Law
0008
    Offices of Peter Angelos, representing the plaintiffs
1
    in the National Asbestos Workers case.
 3
                    MR. TURKEN: Jason Turken, from
 4
    Sedgwick, Detert, Moran & Arnold, representing Brown
 5
    & Williamson Tobacco Corporation.
 6
                     MS. PHILLIPS: Amy Phillips, from
 7
    Arnold & Porter, representing Philip Morris.
 8
                     MR. STREETER: John Streeter, from
 9
    Arnold & Porter, representing Philip Morris and --
10
    that's it.
                     VIDEOGRAPHER: The officer before
11
12
    whom this deposition is taken and sworn by is Susan
13
    Ashe. Operating the video equipment is David Minken.
14
                     This videotaped deposition commences
15
    at 9:44. Please swear in the witness.
16
         Thereupon,
17
                 DAVID T. SCHEFFMAN, PH.D.,
```

```
the Witness, called for examination by counsel for
18
19
    the Plaintiffs, and, after having been sworn by the
    notary, was examined and testified as follows:
20
21
                    MR. ANGLAND: Before turning to the
    questioning, let me just state for the record and
22
0009
    make sure we're all agreed that this deposition has
1
 2
    been cross-noticed in several cases, with the
    understanding that it is therefore going to be deemed
 3
 4
     a deposition taken in each of those cases.
 5
                    Of course, certain portions of the
    deposition may relate, as it turns out, to only one
 6
 7
    particular case; but that's an issue of relevance,
    not an issue of whether the deposition is, if you
 8
 9
    will, available to be deemed taken in that particular
10
    case.
11
                     Do we agree?
12
                     MR. STREETER: That's fine.
13
                     MR. ANGLAND: Okay.
14
                     Counsel want to add anything?
15
                     MR. MINTZER: No; that's fine.
                     MR. ANGLAND: All right.
16
17
    EXAMINATION BY COUNSEL FOR THE PLAINTIFFS, BLUE
18 CROSS/BLUE SHIELD OF NEW JERSEY, ET AL.:
19
                     BY MR. ANGLAND:
20
               Good morning, Dr. Scheffman.
21
          Α
               Good morning.
22
               How are you today?
          Q
0010
1
          Α
               Fine.
2
               Now, I understand you have been deposed
          0
    previously; is that correct?
3
4
          A
               Yes.
 5
               And you have been, in fact, deposed in
     other tobacco health-related cases; is that right?
6
 7
               Yes.
8
          Q
                And forgive me for going over the obvious
9
    here, but I just want to make the record clear.
10
                You understand that the testimony you're
11 giving today is under oath?
12
          A Yes.
13
               The same oath, in effect, that you would
14 be given if you were standing in the courtroom
15
    testifying in front of the jury?
               Yes.
16
          Α
17
                And you understand everything here is
          Q
18
    being recorded?
19
         A Yes.
20
               All right. If at any point you don't
21
    understand any of my questions, please let me know
22
    and I'll do my best to clarify them. Okay?
0011
1
          Α
                Yes.
 2
               Now, you've submitted an expert report in
 3
    this case. What areas of expertise do you claim that
 4
     are relevant to that report?
               Well, I think, as I explain in my report:
 5
 6
     Economics; marketing; and related to marketing,
 7
     analysis of fraud and deception.
 8
         Q Anything else?
 9
              Well, no. I mean, economics and
          A
10 marketing covers a host of issues.
               In particular -- well, let's focus on
11
```

```
economics. I take it, you hold yourself out as an
12
13 expert in industrial organization economics; is that
14
    right?
15
                Yes.
                Okay. How about econmetrics?
16
          Q
17
          Α
                Yes.
               Okay. In marketing, are there any
18
19
     subareas of marketing in which you hold yourself out
20 as an expert?
21
               Distribution, pricing, some issues having
22 to do with advertising, analysis of consumer fraud
0012
    and deception.
1
 2
               Any others?
 3
          Α
                That's what I can recall right now.
 4
               Is there any subarea relating to new
5
    product development or introduction, in which you
    claim to have expertise?
 6
7
                Oh, yes. All right. Yeah.
8
                I -- I have considerable expertise as a
9
    business school professor and business consultant on
10
     some areas, such as new product development.
                Now, in the area of economics, is it fair
11
12
    to say you developed your expertise while getting --
13
    in the course of getting a doctorate in economics?
14
         A Well, that's the beginning. That's the
15 first step.
16
          Q
                Okay.
                But it's a life-long learning process --
17
          Α
                All right. In marketing, when did you
18
19 become an expert in marketing?
     A I don't -- from -- expert in what sense?
20
21
     When was I first qualified as an expert in marketing?
22
                When did you get to the point that you
0013
     felt you could hold yourself out as an expert in
1
 2
    marketing?
 3
                Well, certainly, on some specific issues
    at the FTC that I dealt with, having to do with
 4
 5
     advertising fraud and deception. And when I went to
    Vanderbilt in 1989, I began to teach courses in
 6
 7
    marketing.
                Now, at the FTC, when you worked on
 8
9
    advertising issues relating to fraud and deception,
10
    what was the nature of the work you actually did on
11
    those matters?
12
               Participated in developing or
          Α
13
    interpreting consumer surveys, copy tests, business
14 documents or other analyses of what the -- what the
15
     apparent effect was of advertising in the
16
    marketplace.
17
                So the -- the area of marketing in which
          0
18
    you developed expertise during that activity related,
19
     as I understand it, to interpreting consumer
20
    responses to advertising?
21
               Well, it's -- again, there were -- I
22
    mean, there -- there are various sorts of marketing
0014
    and economic evidence that we would review as
1
 2
    economists at the FTC: Consumer surveys, in which we
 3 participate in creating surveys that are interpreting
 4 surveys; interpretation of copy tests; evidence from
 5
    various sources, company documents or other things
```

about what the intent, purpose, and effects of 6 7 advertising might be in the marketplace. 8 Q When you worked on these matters, did 9 the -- at the FTC -- did the FTC retain any outside 10 marketing experts? Occasionally. 11 Α 12 Why? 13 In terms of -- in litigation, the FTC, on Α 14 the consumer protection side, would usually use an 15 expert, an outside expert, rather than an inside. 16 Not always, but... 17 Now, on the antitrust side of the FTC, they often use their own economists as experts in 18 litigations; is that correct? 19 20 A They have more recently. During my time, 21 that was -- that was unusual. 2.2 There was less litigation during your 0015 1 time on the antitrust side than there is now; isn't 2 that right? A No. We actually had quite a bit. We had 3 quite a bit of litigation of various kinds. 4 But we didn't use those -- partly because 5 6 of the workload, we didn't -- we didn't use inside 7 economists as much as had been used previously. 8 And that was largely due to the, you 9 know, high workload of merger review that occurred in the '80s that wasn't going on in the '70s. And I 10 think, more recently, they have used -- they have 11 12 used internal economists more as experts. 13 Going back for a moment to industrial 14 organization economics, what would you point to as 15 the leading written authorities in that field? Well, I don't think there is --16 17 industrial organization economics is a very, very broad area, encompasses all sorts of areas of --18 19 micro-economics. 20 I don't think there is -- I don't think 21 there is such a thing. 22 Okay. Let's move away, then, from 0016 individual documents and move instead to people. 1 2 Who would you point to as being 3 authoritative spokesmen in the -- experts in the area 4 of micro -- I'm sorry -- in the area of industrial 5 organization economics? Well, there's many, many, many. 6 7 I don't -- I could name some names. But 8 it would -- you know, it would be misleading, you 9 know, because there are many people that are 10 prominent industrial --11 I'm not going to ask you to exhaust --Q 12 exhaust the list. 13 But, you know, if I were to come to you 14 as a student and say: "I really want to read some of 15 the best stuff around in industrial organization economics" -- realizing, Dr. Scheffman, you may not 16 17 agree with every word and -- that even the greatest 18 industrial organization economics says, but -- but --19 but you know who the good ones are -- to whom would 20 you point me? 21 Among -- and again, you don't have to be 22 exhaustive here. But just give me some of the names.

```
0017
1
               Of people who are alive today?
          Α
               No; I wouldn't limit it to that. You can
 2
 3
     include Joe Bain, if you wish, or people of that ilk.
                Well, there were -- some of the people
 4
 5
     who essentially started the discipline, Joe -- Joe
     Bain and a more important professor at Harvard --
 6
 7
     Harvard -- who I can't remember the name.
 8
                Professor Director?
           Ω
9
           Α
                Certainly, yes; correct.
10
                 People in the so-called "Chicago school"
11
     and people in the so-called "UCLA school."
               Well, in the Chicago school, can you
12
     think of anybody that you would deem an authoritative
13
14
     source in the area of industrial organization?
15
               Most everyone in the Chicago school deems
    themself an authority. But the -- in the
16
     industrial -- but, Aaron Director, obviously, was --
17
     founded the school.
18
19
                 Milton Friedman, George Stigler, younger
20
     people like Dennis Carlton, and a variety of other
21
     people whose name escape me right now.
22
                 Okay. What about in the UCLA school?
0018
1
                 Well, you have Alchian and Demsetz.
2
     George -- again, there's a number of -- a number of
3
     other people -- my classmate, John Riley, and other
     people whose name I can't remember right now.
4
     ight now. This semester, are you teaching?
5
13
                Clearly not right now.
14
                 I'm not teaching this semester, no.
15
                 Okay. Are you affiliated with a
16
     university at this point?
17
          Α
                Yes.
18
                 And what university is that?
19
          Α
                 Vanderbilt.
20
                 Okay. What's your exact status? Are you
          Q
     on leave of absence? Or -- or -- how would you
21
     describe your relationship at this term?
22
0060
1
                 I was a chaired professor at Vanderbilt
     until last August. And I'm now a -- a non-chaired,
 2.
     untenured professor of business strategy and
 3
 4
     marketing --
 5
           Q
                 I'm sorry. I didn't mean to cut you off.
 6
                 I still teach.
 7
                 I changed my status to essentially being
8
     a teaching professor, not -- not in residence.
9
                And why did you make that change?
10
                 Because I -- every 10 years, I do
11
     something -- I change, do something completely
12
     different. So -- which -- that's actually the
13
     reason.
14
                 And I decided I wanted to do something
15
    different. And -- and the different thing that I
     chose to do this time is do -- spend much more of my
16
     effort on -- on various consulting and research
17
18
     projects than I had been able to do when I was a
19
    professor.
20
                 About what portion of that consulting is
          0
21
     litigation-related?
22
               It -- it depends a lot on the period of
0061
```

```
1
     time.
                 Say, the last four years.
 2
 3
                 I'm sorry. When did you -- when again
 4
     did you change your position at -- at Vanderbilt?
5
          Α
                August.
6
                 This August?
          Q
7
                 Yes; last August, yeah.
          Α
8
                Okay. Well, I guess all I could say is:
9
    During the period from last August to the present,
10
     about what portion of your consulting has been
11
    related to litigation matters?
                Since last August, most of it.
12
                Okay. And do you mean "most" as in 55
13
    percent, 95 percent, or something in the middle?
14
15
                I'm not very good at this. I mean, I
16
    do -- I do a lot of consulting that isn't -- that
17
    isn't litigation. And how much of that really
18
     depends on what comes in the door, what I choose to
19
20
                 But I think, since last August, certainly
21
    more than three-quarters of my time has been involved
22
    in litigation.
0062
1
                 Do you do -- during that period, have you
2
     worked on any mergers?
3
               Yes.
          Α
 4
                Are you including them in the litigation
 5
     or the non-litigation category?
 6
                No, I'm not including them.
                Okay. Now, those are matters where, I
 7
8
    guess, the theory is to try to avoid litigation --
9
    let me back up.
10
                 Were you -- in all those cases, were you
11
    representing the merging parties?
12
          Α
                No.
                Okay. In some of those cases, were you
13
14
    representing somebody who was opposing the merger?
15
          Α
                 Yes.
16
                 Okay. And in all of those cases,
           Q
17
    therefore, one side or the other was trying to avoid
    litigation; is that right?
18
19
          Α
                No.
                 Can you describe the situation, the
20
21
     merger situation, where nobody would have preferred
22
     to avoid litigation?
0063
1
                     MR. TURKEN: Objection.
2
                 I'm sorry. I don't understand that.
3
    Nobody --
 4
                 Well, what I'm trying to get at is --
 5
     let's sort of build up to it.
 6
                 In a typical, simple merger investigation
 7
    before the FTC, an economist such as yourself might
 8
    go in to try to explain why a merger is
 9
    pro-competitive or at least not anti-competitive; is
10
    that right?
11
          Α
                 Correct.
12
                 Okay. And what the parties are trying to
13
    do there, the merging paring to a basic industrial organization proposition.
9
                 All right.
          Α
10
                 And again, acknowledging that you think
11
     that the industry behaves differently than my
12
     hypothetical -- I acknowledge that -- would you agree
```

that what makes entry into the market a disciplining 13 act regarding a conspiracy is the potential of the 14 entrant to acquire a large enough marketshare that 15 16 the costs of losing sales to the entrant outweighs to 17 the conspirators the increased profits they get on 18 the sales they retain? MR. STREETER: Objection. 19 20 No. I'm saying that's part of it. But 21 the -- more specifically, the issue is: Who is going 22 to take the hit? 0117 That is the -- that is the -- you're 1 referring to industrial organization analysis, which 2 is usually based on homogenous product industry. And 3 4 you say, "Well, whoever comes in, everyone takes the 5 same hit." 6 But particularly in branded product 7 industry, the -- the -- the hit that's taken depends 8 on the nature of the entry, the nature of the 9 conspiracy. So it really depends on -- if you need 10 11 the actual -- all the conspirators to participate to have it, then what's highly important is what is --12 13 how is the hit experienced across the members of the 14 conspiracy? 15 As I've said in the case of Liggett --16 you know, they might come in -- they might be small, but they're going to hurt them very badly. 17 And in -- let me re-ask the question, but 18 19 focusing on it from a firm by firm perspective. 20 From the point of view of each firm that 21 is a conspirator, whether or not entry by another 22 firm would induce it to leave the conspiracy, would 0118 be a function of whether to that particular firm the 1 amount of profits -- the amount it loses to the new 3 entrant offsets the additional profits it gains on 4 the sales it retains; is that right? 5 Α Yes. 6 And the same thing applies, does it not, 7 when conspirators are looking at one conspirator who's on the margin and might choose not to 8 9 participate in the conspiracy -- whether the 10 conspiracy makes sense for the remaining conspirators 11 is a function of whether the profits, extra profits, 12 they make -- in this case, pack that they sell --13 would outweigh losses they would sustain to that one 14 smaller industry member who chooses not to stay in 15 the conspiracy; isn't that right? 16 The basic -- the basic economic calculus 17 is, you know, what -- trading off the sales lost for whatever reason for -- for people in the industry or 18 19 people who enter or others -- versus the increased 20 profit can be made on the volume that's retained. 21 And when you do that calculation, the 22 smaller the marketshare of the fringe firm that's in 0119 1 the market or the potential entrant -- the smaller 2 the loss there is to the -- let's -- I -- let me 3 break it down one by one. 4 The smaller the potential marketshare of the potential entrant, the less the downside, if you will, of the conspiracy to the conspirators?

```
7
                 Other things equal, yeah.
                Okay. Do you have a view regarding
 8
     whether the structure of the tobacco industry is such
9
10
     that it would be possible to have an effective
11
     price-fixing conspiracy, assuming for a moment the
     tobacco companies chose to ignore the antitrust laws
12
     and went out and got into a smoke-filled room and set
13
14
                Yes. I think -- I think it -- it --
          Α
15
16
     it -- in theory -- in theory could.
17
                 I mean, what we don't know I -- I
    couldn't state that definitively, because we know
18
    that price value brands on imports -- price value
19
     brands are really important in the industry in
20
21
     driving price competition, and that imports have been
22
     very important.
0120
                 And so, for example -- you know, Philip
1
2
    Morris acted, not because -- what RJR was doing.
 3
     Primarily, it was acting because of what was
     happening in the price value segment in the market,
 4
 5
     which was, in part, the little guys.
                 So I don't -- I don't know -- I don't
 6
 7
    know for sure, though you'd have to take those
 8
     factors into account. But you do have -- you do have
 9
    other factors.
10
                Would the answer be the same if I phrased
     it in terms of a conspiracy to reduce output in the
11
12
    market?
13
                Yes.
14
                Would the answer be the same if I asked
15 about a conspiracy to allocate the market by
16
    geography?
17
     A
                 That's -- that's -- you mean, in the
18
    U.S.?
19
                Yes.
20
                 That's -- that's simply not possible.
21
                Okay. Would the answer be the same -- as
22
    your prior answer, not your geography answer -- if
0121
    the question were about allocating the market by type
1
     of product?
2
 3
          Α
                Like what?
                Well, for example, is -- do you have a
 4
 5
    view regarding whether it would -- let me back up.
 6
                Are you familiar with the term "product
7
     space"?
 8
                Yes.
9
                Are you familiar with some of Dick
10
     Schmalemsee's work on product space?
11
          Α
12
                 Okay. So you understand that products
           Ο
13
    that are generally competitive with one another may
14
    differ along certain dimensions, such as whether they
15
    have a filter or not, or how much tar and nicotine
     they have, or taste characteristics; is that fair?
16
17
          Α
                Yes.
18
                Okay. Would it be possible that --
19
     strike that.
20
                Do you have an opinion regarding whether
21
     it would be possible for firms in the tobacco
22
     industry to have an effective conspiracy dividing the
0122
```

market up into product space, such that there were 1 agreements that certain companies would not enter 2. 3 certain product space and other companies would not 4 enter other product space? No; I think -- I don't think that could 5 6 work. 7 Why not? 8 Because we know, for example, that the 9 division between price value and premium, there's --10 there's -- there's highly intense competition between 11 those two. So, dividing them -- and that's why we 12 see, all of them have entered. Even the ones with 13 the strongest bans have reluctantly, as in all --14 15 entered the price value segment, because it's just --16 there's too much direct competition. 17 The price -- it doesn't make any sense. You allocate between price value and the others. The 18 19 price value's the growing segment. Those are the 2.0 ones that, eating the lunch, are the premium brands. That's -- that's not the way it would make sense for 21 22 anyone to divide things. 0123 1 Within the price value segment, are there 2 any differences among products? 3 Sure. 4 Do you have a view regarding whether it 5 would be possible to allocate products within the 6 price value segment? 7 A I don't think it's -- again, my -- my 8 general conclusion on this is, it wouldn't make -- it 9 wouldn't be -- it wouldn't make economic sense for 10 the conspirators to try and do such an allocation. 11 And it -- and it couldn't work. Why couldn't it work? 12 Q 13 Because it would -- it would, by its own Α 14 nature -- see, you allocate markets or products to 15 try and limit competition. 16 And I don't know how to limit -- you 17 know -- the way you think about allocating is, you're highlighting the competition. You make the parties 18 in which -- you have sales primarily on price value 19 brand, in which their profitability hinges on them 20 21 getting an increased share over time, because they're 22 not -- of low-margin product. 0124 Their whole incentive is to compete 1 against the premium brands. That's -- you've --3 you've allocated things that reinforces competition 4 rather than reduce it. 5 Well, isn't there also competition among 6 different price value brands? 7 Α Yes. 8 And is it your testimony that it would be 9 impossible to allocate product space in the price value brands among companies, with the result that, 10 by virtue of decreasing competition as to certain 11 12 attributes of price value brands, all companies would 13 wind up having higher profits? 14 I just can't see what that would be. 15 Putting aside whether you could see what 16 it would be, have you reached a conclusion that it's 17 impossible?

```
18
           Α
                 No.
19
                 Okay. Would it be possible -- do you
           Q
20
     have an opinion regarding whether it would be
21
     possible for tobacco companies to have an effective
     agreement to restrict research and development --
22
0125
     strike that -- to -- to restrict development of
1
 2
     new products?
 3
           Α
                 Yes.
 4
                 And what's that view?
 5
                 Well, as I expressed in my report and
    various testimony, development of new products is --
 6
 7
     if we talk about what the market -- what the
     geographic and the product market is, we're talking
 8
 9
     about lots of players, other than the defendants in
10
     this suit --
11
          Q
               Okay.
                -- that are highly resourceful and have a
12
          Α
13
     long history of development.
14
                Have you reached a conclusion regarding
     whether it would be possible for U.S. tobacco
15
16
     companies to have an effective agreement to restrict
17
     the introduction, as opposed to the research and
18
     development, of new products?
19
           Α
                Yes.
20
                 What's that conclusion?
           Q
21
                 Well, as I expressed before: Again,
          Α
     there's still -- there's lots of players worldwide.
22
0126
 1
    You have very big resourceful players -- Ban Tobacco,
 2
     Reetsma, and the Spanish -- and the Spanish Tobacco
 3
     Company, which is increasingly aggressive. You have
 4
     lots of players producing cigarettes everywhere in
 5
     the world.
                 How large a share of the United States
 6
           Q
 7
     markets have these foreign companies, other than
     British American Tobacco, acquired?
 8
 9
           Α
                 Very small.
10
                 Have you done any analysis regarding
           0
11
     whether it would be practical for those brands to
12
     achieve a substantial marketshare in the United
13
    States?
14
                 With respect to the issues in this case,
          Α
15
    yes.
16
          Q
                 And what -- and your conclusion is?
17
                 That is, if any -- anybody, anywhere in
          Α
     the world came up with the magic bullet product, that
18
19
     is -- the medical community said, "This is it" --
20
     they'd be able to sell a lot of products very fast.
21
                      MR. ANGLAND: Okay. We need to
22
     change the tape, I believe.
0127
1
                      VIDEOGRAPHER: Off the record at
 2
     11:52. End of Tape 1.
 3
                      (A recess was taken.)
 4
                      VIDEOGRAPHER: Back on the record at
 5
     11:53.
                      BY MR. ANGLAND:
 6
 7
                 In your litigation consulting work, in
 8
     about how many different industries have you examined
 9
     the question of whether there was a conspiracy?
10
                You mean, since leaving the FTC?
           Α
11
           Q
                 Yes.
```

```
12
                I, you know, would have to look at my
13 resume -- a number.
14
         Q Ten? As many as ten?
15
               Whether there actually was a conspiracy?
16
          Q
               Yes.
17
               Not -- not -- not more than 10.
                I mean, we could -- if we went down
18
19
    through my resume and a number of other things, we
20
     probably could figure out more precisely.
21
                Okay. We may do that in a little bit.
22
                In how many of those industries, if any,
0128
     did you conclude that there was a conspiracy?
1
 2
                Two or three.
           Α
                Okay. Which industries are those?
 3
           Q
 4
                One is confidential.
 5
                One is on my resume as the -- the --
     what's the name? -- the road maintenance case in
 6
7
     Southern Illinois.
8
                In connection with my work on milk
9
     price-fixing cases, I talked to people that were
10
     involved in a conspiracy; and they told me, you know,
     what they did and what the conspiracy was about.
11
12
                And I have -- in another -- in a
13
    confidential matter, it's been exactly the same --
14 that, you know, they said they were a conspiracy.
15
    They were parties to it. They explained to me how it
16
    worked.
                The confidential matter that you just
17
18
    referred to now, was that the same confidential
19
    matter that you talked about --
20
          A Yes.
21
          Q
                -- a moment ago?
22
           Α
                Yes.
0129
               Okay. So in the confidential matter and
1
     in the milk conspiracy, the participants -- or at
 3
     least some of the participants in the -- in the
     conspiracy admitted to you that they had been
 4
 5
     involved in the conspiracy; is that right?
 6
               Yeah; but that wasn't the -- it wasn't
 7
     just that. Okay? Because --
                I recognize you may have done additional
 8
9
     work. But I --
               No. But I didn't -- it wasn't just that
10
          Α
11
    they -- you know, I -- I sat down and said -- you
12
    know, what -- "Tell me what you did, exactly" --
13
     etc. -- "How did this work?" -- rather than saying
14
     something had happened, you know.
15
                 It seemed clear to me, and them
16
     explaining what exactly they had done, that they
17
    clearly had been part of a -- an attempted
18
     conspiracy.
19
                Okay. In the road maintenance case in
20
     Illinois, in that one did anybody admit that they had
    been involved in a conspiracy?
21
22
          Α
                No.
0130
                But you concluded in that case that there
1
 2
    had, in fact, been an conspiracy; is that --
 3
                Well, I may have answered too quickly at
 4
     the beginning of this.
 5
                 I don't ever conclude that there is a
```

```
conspiracy. That's for the fact finder to determine.
 6
 7
               I -- I -- I concluded, the economic
 8 evidence was consistent with there having been a
9
    conspiracy.
               Um-hum. And by whom are you retained in
10
          Q
11
    that matter?
12
              By plaintiff.
          A
13
               In how many of the other cases, in which
14
    you in your private consultant capacity examined the
15 issue of conspiracy, were you retained by the
16 plaintiff?
17
                In a Section 1 allegation?
          Α
18
          Q
                Yes.
19
          Α
                Right.
                I named three or -- well, retained by the
20
21
    plaintiff -- since the FTC, probably two or three.
22
               Okay. Which industries were those?
0131
1
               Well, at the road building, I worked on a
2.
    case in Nashville involving a alleged occlusive
 3
    boycott.
 4
                Was there a dispute regarding whether
          Q
    there had, in fact, been a -- a boycott -- that is, a
 5
 6
     conspiracy to not deal with somebody?
7
               Well, the -- certain of the -- the
8
    parties that were party to the alleged conspiracy
9
    said, of course, there wasn't.
10
                But the economic evidence certainly
   didn't seem to confirm that conclusion. And that was
11
12
    a matter that -- that settled after six months or
13 something.
14
                So in your view, the economic evidence
          Q
15
    suggested that there was a conspiracy; is that right?
               The economic evidence, certainly, that I
16
17 looked at indicated there was -- there was concerted
18 activity of boycott in an attempt to cut off supplies
19
    to the plaintiff in the case.
20
               What industry was that?
          Q
21
               That was house contracting.
          Α
22
               Okay. Besides the road maintenance case
0132
    and the house contracting case, were there any other
1
 2
    cases in which you were retained by a plaintiff in a
 3
    case to address the question of whether the economic
 4
    evidence was consistent with a conspiracy?
 5
          A That's what I can recall today; and if we
 6
    refer to the -- my resume, we might find something
7
    else. But...
8
                Okay. To the best of your current
9
    recollection, is it true that, in every case that you
10
    have been retained by the plaintiff to determine
11
    whether a conspiracy existed, you concluded that the
12
     evidence was consistent with a conspiracy?
13
          A
              No.
14
               And can you tell me the -- the cases
15
    where you were retained by a plaintiff, where you did
16
    not reach that conclusion?
17
          A Well, I've -- I've worked on cases in
    which -- would have been -- which I was retained as a
18
19
    consulting expert. And I decided that I didn't -- my
20
     conclusion didn't support their opinion.
21
               Okay. And which industries did those
22
    involve?
```

```
0133
1
               I -- I don't -- I -- I don't know if I
     can remember. I think I can remember something
 2
 3
    having to do with the general telecommunications
 4
     industry.
5
                Do you recall which segment of that
          Q
 6
     industry?
 7
          Α
                No.
8
                Can you recall any other cases where you
          Ω
    were retained by a plaintiff to look into the
9
10
    conspiracy issue, and after reviewing it concluded
    that the evidence did not support the existence of
11
12
    conspiracy?
               Not that I can recall today.
13
          Α
14
          Q
                Okay. Do you know if there were any
15
    others?
16
                I just -- I can't recall.
          Α
17
                Okay. Let's look at the other side.
18
                Have there been any cases where you were
19
    retained by a defendant to address the conspiracy
   issue, and you concluded that the evidence was
20
21
     consistent with there being a conspiracy?
22
               Not that I can recall.
0134
1
               Okay. Now -- I'm sorry.
2
               As you know, it's more complicated than
3
    that. If you get to the point of actually doing a
    lot of work and everything, you're probably far
4
    enough long that you -- that you have a conclusion.
5
 6
                Now, very often, as you know, you're
7
    retained and you look at something and say, "Well, I
    don't think I -- I don't -- my guess is that -- I
8
9
    don't know if it will work yet, but my guess is, it's
10
    not going to come out right."
11
                So you don't -- you end up not taking the
12
     retention or not getting retained.
13
          Q Do you -- can you identify cases where,
14
    when a defendant approached you in a case, that
15
    happened?
16
                Yeah, I think so.
17
               Okay. What industry?
18
               It's been the consumer product industry,
          Α
    I think.
19
20
       Q
                Do you recall which consumer product
21
     industry?
2.2
         A
               It was a confidential engagement. No. I
0135
1
    don't -- no. I think it was some sort of -- some --
2
    well, it may have been a consumer product or some
3
     ingredient that goes into a consumer product or
4
     some --
 5
          Ο
                How long ago was that?
 6
          Α
                I don't know, sometime in the last
7
    several years.
8
               Now, in the course of your work on
9
    smoking and health issues, have you come to any
10
     conclusion regarding whether smoking is a significant
11
    contributor to certain health problems?
12
                Well, as I have testified, I'm not --
13
    I've reviewed the Surgeon General -- very -- many of
    the Surgeon General's report -- I rely on the Surgeon
14
15
     General's opinion.
16
                So I think that -- yes, I think for a lot
```

```
of people smoking is a significant cause of -- of
17
    health problems.
18
19
          Q
               And based upon your review of the
20
     literature in the smoking and health area, did there
     come a point in time at which there was something of
21
     a consensus in the medical and/or scientific
22
0136
     communities regarding whether smoking was a
1
 2
     significant contributor to diseases?
 3
                     MR. STREETER: Objection.
 4
                That's really a very interesting
 5
     question. It goes on what you -- what you determine
 6
     by a "consensus."
                So you have -- that's very important,
 7
 8
     "consensus" -- what -- what do you mean by
9
     "consensus"?
10
                Are you -- in the early 1950's in the
    U.K. -- medical body included -- essentially came to
11
12
    the conclusion similar to 1964 Surgeon General's
13
    report.
                 In 1957, Surgeon General Bernie and the
14
15
    Public Health Service came to a similar conclusion
    and stated it. But there was certainly no consensus
16
17
     in the U.S. There were hearings about it and
18
    everything.
19
                As they admit, you know, there was --
20 there was a substantial percentage of medical people
    at that point that were on the other side.
2.1
                 By 1964, in which the Surgeon General's
22
0137
    committee was convened -- and they came to a
1
 2
     conclusion, which was a consensus of the committee.
 3
                There were certainly -- a lot more of the
    medical community accepted the -- accepted the
 4
     conclusion of the Surgeon General. But there were
 5
     still a number of prominent medical researchers that
 6
 7
    disagreed.
8
                Prior to -- at some point prior to 1964,
9
    a majority of the -- the medical/scientific community
10
    who had knowledge concerning smoking and health had
11
     come to the conclusion that smoking created health
    problems, hadn't they?
12
               It's -- it's difficult to be, you know,
13
14
    factually precise about that.
15
                Surgeon General Bernie testified in '57
16
    that he thought maybe 25 percent of the medical
17
    experts disagreed with his conclusion. That was
18
    his -- that was his opinion.
19
                Okay. And I -- strike that.
                 Okay. And does it follow that about 75
20
21
    percent agreed with his opinion?
22
           A Well, that was according to his opinion.
0138
1
                 But, see, the problem is: If you read
 2
     the whole -- if you read the whole record, you
    have -- during that same period of time, you have
 3
 4
    high-ranking officials in the AMA stating something
 5
    quite contrary.
                 So I don't -- I don't know that we -- I
 6
 7
    don't think we have any -- I don't think we have any
    precise information about, you know, what -- what
 8
 9
    category of people and -- like, did most doctors --
10
    did those doctors believe it in 1957?
```

Well, we have a survey of it. One thing 11 12 is that they, you know -- we have this -- it's -- and 13 it's an interesting survey. Yeah. 14 But -- the majority of doctors at the time were smokers and continued to smoke and didn't 15 16 change their smoking behavior because of the publicity at the time. So it's kind of hard to tell. 17 We do know, from the early '50s onward 18 19 more and more of the medical community and certainly 20 more and more of the public -- maybe more of the public than the medical community -- believed there 21 22 was a problem. 0139 I'm sorry. Was there a -- was it at some 1 point between 1954 and 1964 that a consensus emerged 2 3 that smoking had adverse health consequences? 4 MR. STREETER: Objection. 5 No -- well, as you recall, what happened is that the Kennedy Administration and the Surgeon 6 7 General decided to convene a special committee to look at the smoking and health question, and report 8 9 to the Surgeon General. And that of course became the 1964 Surgeon General's report. 10 11 And that -- that became a consensus of 12 the -- of the U.S. government, of the Surgeon 13 General. 14 And more than -- more than that, that Bernie had decided in '57 that it was a -- you know, 15 that it was a consensus of the U.S. -- as a statement 16 17 of public policy by the U.S. government -- that smoking was dangerous -- was -- was potentially 18 19 dangerous. 20 Now, moving away from the use of the -the word "consensus" for a moment, can you tell me, 21 based upon your review of the history of the smoking 22 0140 and health issue in the United States -- can you tell 1 2 me at what point in time there was first substantial 3 evidence that smoking had an adverse effect on 4 health? 5 And -- well, let me rephrase that, actually. I used the word "substantial." I -- I 6 really should have said "credible," because I'm 7 8 talking not about the quantity of evidence, but rather about the believability of evidence. So let 9 10 me restate the question. 11 At what point was there credible evidence 12 that smoking had a significant adverse effect on 13 health? 14 MR. STREETER: Objection. 15 That's a very difficult question. 16 I think the best way to think about this 17 is that people -- people think that science and 18 medical research is sort of like black and white. 19 In fact, the final decisions by 20 governmental bodies and medical authorities on the 21 smoking/health issue was really much more of a legal 22 proceeding, in that -- looking at all the evidence, 0141 much of it very qualitative, and look at the weight 1 2 of the evidence, and looking at what the risks of being wrong, with the Type 1 and Type 2 error -that's a -- fundamentally -- I've reviewed a lot of

```
5
     smoking and health research, and Surgeon General's --
     I mean, fundamentally, why we believe that smoking --
 6
 7
     the scientific basis, the main scientific basis for
 8
     why we believe that smoking is implicated in a
     volume -- in a number of diseases -- is
 9
     epidemiological evidence.
10
                 Because the other -- the other scientific
11
12
     evidence, like animal evidence and things like that,
13
     would be -- would be indirect.
14
                 The problem in smoking and health is: We
15
     don't -- unlike AIDS or pneumonia or whatever, we
     don't -- can't identify, this is the agent, this is
16
     how it works, this is its -- this is what it
17
18
     produces.
19
                 Smoking is -- we don't know. No one
20
     knows, in smoking, what it is and how it works. It
     just -- so the fundamental evidence is
21
     epidemiological.
22
0142
1
                 And so, you have -- historically, you
     have epidemiological studies -- and that was the most
 2
     important thing \operatorname{--} showing in the \operatorname{--} by the early
 3
     '50s, a dramatic increase in lung cancer. And
 4
 5
     that -- and that seemed to be related to smoking.
 6
                 So --
 7
                 But at the same time, then you had Doll &
 8
     Wynder and other ones doing mouse-skin paintings,
     saying, "Well, here's -- might be a reason."
 9
                 But that was on the backs of mice.
10
11
     was interesting. But it didn't -- it didn't prove
12
     anything.
13
                 But, overwhelmingly, the evidence was
14
     epidemiological. And what became more conclusive,
     over time, is getting better, longer-run
15
     epidemiological evidence that showed statistically
16
     that it was difficult to find that there was some
17
18
     other -- that it -- that it could be anything else.
19
                Do you have an opinion regarding when, in
20
     the United States, there was first credible
21
     epidemiological evidence that smoking caused
22
     significant health problems?
0143
1
                      MR. STREETER: Objection.
 2
                 See, the real problem is cause.
 3
                 And the real problem here, as a matter of
 4
     science, was that the main evidence -- the main
 5
     evidence on which everyone in the end really relies
 6
     is epidemiological and statistical evidence.
 7
                 And statistical evidence can't show
 8
     cause. It can just say it's more likely than not.
 9
     But you never know for sure. Maybe it's something
10
     else.
11
                 And that was what, in the early -- for
12
     many years in the industry, a number of people said,
13
    "Well, it really is something else. It's air
14
     pollution. People have been smoking for hundreds of
     years. Why would it be a problem now?"
15
16
                Let me use your words, then.
17
                Do you have an opinion regarding
18
     whether -- well, strike that.
19
                 Do you have an opinion regarding when the
20
     epidemiological evidence was such that it credibly
21
     suggested that it was more likely than not that
```

```
smoking caused substantial adverse health effects?
22
0144
1
                     MR. STREETER: Objection.
2
                 I can't -- I'm not the scientific expert.
3
                 I can say, at each point you could see --
     in 1964, the Surgeon General committee made a
4
     decision. And it made -- you know, in my view, the
 5
     most important evidence was epidemilogical. It was
 6
 7
     still early. More epidemiological evidence was
 8
     accumulated.
 9
                At each step in the industry in 1964,
     people commenting on the Surgeon General hearings.
10
    Comments -- comments to the Surgeon General.
11
12
                Many Congressional hearings for many
13
    years have had prominent medical and scientific
    experts saying, "It's not right. I don't believe it,
14
    because look at the statical analysis that has these
15
     anomalies that don't make any sense, and other things
16
17
     that -- you haven't -- you know, there's no evidence
18
     here about what the mechanism is and how it works."
                 So there always have been some prominent
19
20
     scientific people, less over time, that -- that
     concluded that they didn't believe that the -- that
21
2.2
     the evidence supported the Surgeon General's
0145
1
    conclusion.
2
                Okay. And now, bear in mind, I'm not
     asking about consensus. I say that just as a -- as a
 3
 4
 5
                As of 1964, was there credible
 6
     epidemiological evidence that smoking caused adverse
7
    health effects?
8
         A The Surgeon General's committee thought
9
     there was, certainly. I don't --
10
      Q Do you have an opinion regarding whether
11
     that was a reasonable conclusion?
12
          A Well, I'm not -- I -- I accept the
13
     conclusion.
14
                Do you have an opinion regarding whether,
          Q
15
     at some point prior to 1964, there was credible
     evidence -- credible epidemiological evidence that
16
     smoking caused adverse health effects?
17
               See, you're not -- I'm not -- I'm not the
18
19
     expert here.
20
                And -- I know -- and it's very important,
21
     because people who really, clearly, were experts in
     this area, for many years disagreed with the
22
0146
1
     conclusion. Okay?
                 So I'm not -- I -- I -- as a -- as a
 2
 3
     layman, knowing something about the science, I would
 4
     agree with the '64 Surgeon General's report,
 5
    because -- but it's in part because of the
 6
     Type 1/Type 2 error.
 7
                Suppose he's -- for some reasonable
 8
     chance, he's right -- you know, that's -- I give a
     lot of weight to that conclusion, because the
9
10
     alternative is -- the alternative is, there's -- that
     the cost benefit analysis, it's better to agree with
11
12
     it, because the cost of being wrong on the other side
13
     is too high.
14
               Now, my question, recall, was whether you
          Q
15
     had an opinion. I understand your point that you are
```

```
16
    not a medical expert, as such.
17
               So does that mean that your answer to the
18
    question is, no, you don't have an opinion?
19
               On what?
20
                Do you have an opinion regarding whether,
21
     prior to 1964, there was credible epidemiological
22
     evidence indicating -- and it was more likely than
0147
1
    not -- that smoking produced substantial adverse
2
    health effects?
 3
          Α
               No. There -- there -- there was clearly
    no study or group of studies which -- which
 4
     scientifically -- on scientific method, experts could
 5
     say, "Yes, it's proven."
 6
 7
                And that's not what happened in '64.
 8
                In 1964, the committee viewed all the --
9
    all the evidence of all kinds in record. And they
10
    decide, in the end, in weighing all the evidence --
11
     and -- and in many ways, very qualitative, subtle
12
     ways -- and they say, "It's our conclusion that
13
     such-and-such is true."
14
          Q So is it your testimony, then, that prior
15
     to 1964 there was no credible epidemiological
16
     evidence suggesting that it was more likely than not
17
    that smoking caused substantial adverse health
18
    effects?
19
                There was -- I don't know what you mean
          Α
20
    by "credible."
21
                It was clearly an open issue. There were
22
     studies that -- there were studies that went both
0148
    ways. There were studies and evidence -- evidence
1
 2
     mounted over time -- studies, more supporting the
     conclusion of adverse consequences of smoking.
 3
                And that's continued to this day. More
 4
 5
     and more evidence has continued to this day.
 6
                I'm saying, it was a -- it was a -- the
 7
     Surgeon General's committee was public -- making a
     public policy. The science didn't say and the
8
9
    committee never said, "It's black and -- the science
    is black and white. It's -- it's like AIDS or
10
    pneumonia. We know. Here is what it is. It's
11
12
    true."
13
                We've never had that situation with the
14
    cigarette.
15
                Based upon your study of the smoking and
    health industry, do you have an opinion regarding
16
17
    whether the tobacco companies, or any of the tobacco
18
     companies, after the point -- after a point at which
19
     there was a consensus that smoking more likely than
20
     not caused adverse health effects, took the position
21
     that smoking did not cause such effects?
22
                     MR. STREETER: Objection.
0149
1
                Consensus by who? And what do you mean
 2
    by "consensus"?
               Well, I think you used the word earlier.
 3
 4
     I -- I could be wrong, but I thought you used it
 5
     before I did.
 6
               No. I thought I -- I thought you started
          Α
 7
     it. And I started out by saying --
 8
          Q
               Well, maybe.
 9
                -- I'm not quite sure what you mean by
           Α
```

```
10
     that.
11
                 We know -- by 1964 -- there was a
12
    broad -- there was a broad-based consensus by
13
     consumers that there were -- there might be serious
14
     problems with cigarettes.
15
                 If we follow the scientific research, we
     find more and more are -- less and less people
16
17
     willing to dispute the conclusion in the scientific
     community.
18
19
                 So we have the Surgeon General's report
20
     in '64; and that's a consensus of a government body
     about what's best for public policy in the U.S.
21
                 And certainly, at that point and after,
2.2
0150
 1
     the -- the industry and the companies took a
 2
     different position.
 3
                Are you aware of any point at which the
           Q
 4
     companies, the tobacco companies, took a position on
 5
     smoking and health that was inconsistent with the
 6
     overwhelming body of scientific thought on the
 7
     subject?
 8
                      MR. STREETER: Objection.
 9
                 Well, "overwhelming body" is a -- is a
10
     little bit -- the -- well, we know that the industry
11
     took a position contrary to what the Surgeon General
12
     decided in '64, contrary to what Surgeon General
13
     Bernie concluded in '57, contrary to what -- the
     Surgeon -- in some respects, contrary to what later
14
15
     Surgeon General's reports show.
16
          Q Do you have a view regarding whether
17
     nicotine is an addictive substance?
18
                     MR. STREETER: Objection.
19
                 I'm not -- I'm no an expert on addiction.
20
                 I know, as -- I know from my research and
     from just -- from growing up with smokers -- for some
2.1
22
     people, cigarettes are highly habit-forming.
0151
 1
                 If it -- "addiction" is a matter of -- a
     medical term.
 2
 3
                Have you ever used the word
     "habit-forming" -- now, to include both mild
 4
     habit-forming and addiction -- cover the whole range
 5
     of, if you will, medical or psychological phenomena
 6
 7
     that might make somebody want to re-use a particular
 8
     product and find it difficult to resist in doing
 9
     that. I'll use your term.
                 Are you aware of any statements by the
10
11
     tobacco companies that you believe were inconsistent
12
     with the clear evidence regarding the extent to which
13
     cigarettes were habit-forming?
14
                      MR. STREETER: Objection.
15
                 Well, we know, of course, that the
16
     executives testified -- a number of executives
17
     testified to -- in their belief, cigarettes weren't
18
     addictive.
19
                 But that was not your -- you're talking
20
     to non-scientific people and -- issues.
21
                 What do you mean by "addictive"?
                 I mean, it's -- if the -- if -- if the
22
0152
     Surgeon General says -- and the public health
1
     authorities say, "Addiction means 'this.' This is
 3
     what it means. And so, cigarettes fit that
```

```
definition, " that's -- by that definition, that's
 4
 5
    addictive.
 6
          Q
               Um-hum.
 7
           Α
               As a matter of scientific definition.
8
               What's happened to smoking prevalence in
9
     the United States since 1954?
          A Declined dramatically.
10
11
                Why?
12
          Α
                Because -- because people overwhelmingly
    realize the whole health-care -- that there are
13
    health-care risks. They are -- people are better
14
    informed -- better educated, probably. And less
15
    people choose to smoke.
16
17
               Does being better educated decrease the
18
    likelihood that people will smoke?
19
          A
               If you look at the demographics, yeah --
20
     yeah, the demographics used, you know, towards lower
21
     income, lower education, people and smoking
22
     prevalence.
0153
               How does education in the United States
1
 2
     compare, on average, to -- the extent of education
     compare to education in foreign countries, in terms
 3
 4
     of the average amount of education?
 5
          Α
                It depends on the country.
 6
                Okay. Let's -- let's limit it to -- for
 7
     the moment, to European countries.
8
               Depends on the country.
9
                Okay. Can you generalize, across the
10
    European countries?
11
          A Well, historically, by -- by measures of
12
    how far you go in public education is one measure.
13
     What percent of the population goes past public
     education to college and things like that, the U.S.
14
    has historically been had ahead of many European
15
16
     countries.
17
                How many European countries have higher
          Q
18
     average annual income than the United States?
19
          A Not very many.
20
               And let's not limit it to Europe now.
21
    How many countries throughout the world have higher
    average annual income than the United States?
2.2
0154
1
                Very few.
                So, holding everything else constant, as
 2
           Q
 3
     economists sometimes are wont to do, you would expect
     smoking prevalence to be higher in other countries
 4
5
     than in the United States, if you just focused upon
     the comparison of income; is that right?
 6
 7
                It could. It depends, culturally.
 8
                I mean, income cuts -- income cuts two
9
    ways, because smoking is, for regular smokers, a
10
     substantial expense. So higher income cuts two ways.
11
               And --
12
               A given smoker -- for a -- for a person
13
     who is going to smoke, higher -- higher income other
     than people buying because they -- they might smoke
14
15
     more -- they might smoke more expensive cigarettes.
16
                It depends, culturally.
17
                And in the United States, looking at
    the -- the two things that cut different ways, the
18
19
    fact that, on the one hand, would -- higher-income
20
     people tend to smoke less -- but on the other hand,
```

```
21
     if you're very poor, you can't even afford the money
    for cigarettes -- when you consider those two
2.2
0155
1
     competing factors in the United States, the way they
     net out is that the higher your income, the less
     likely you are to smoke; isn't that right?
3
                     MR. STREETER: Objection.
4
                No. That -- that -- the higher -- I was
 5
6
     talking about, specifically in the U.S.
7
                And I was talking about, if you just look
8
     at the data, the cost -- data, the higher-income
     people in the U.S. have lower prevalence of smoking.
9
                That's in the U.S.
10
               And that's notwithstanding the fact that
11
12
     they had more money available to spend on cigarettes
13
     in the United States?
14
              Correct.
          A
15
                Okay. Let's talk about OPEC.
                Well, for the record, what is OPEC?
16
17
          A It's a organization of many of the major
18
     oil-producing countries.
19
         Q Now, from -- at various times, has OPEC
     engaged in conduct that is, in essence, a
20
21
     price-fixing conspiracy, putting aside the fact that
22
    it may be legal because it may be done by foreign
0156
1
    governments, who are not subject to our antitrust
     laws?
 2.
               Well, it's -- firstly, the -- the -- it's
 3
     actually an output restricting conspiracy rather than
 4
 5
     a price, in effect, is similar. But --
          Q Right. From an economist's point of
 6
7
    view, given the -- the nature of supply and demand
     curves -- if you -- if you specify output, you're
8
     essentially agreeing on price; isn't that right?
9
         A If -- if -- unless there's some other
10
    parties at play --
11
12
              Okay.
          0
13
                -- that aren't part of your -- part of
          Α
14 your gang.
15
               All right. Now, has OPEC, at times --
16 has the -- has the OPEC agreement, in their
    agreements on output with their effect on price, at
17
18
    times, had the effect of substantially increasing
19
    gasoline prices in the United States?
20
         A Yes.
21
          Q
               Okay. Are we in such a period now?
22
                Yes.
0157
1
             And there is that period some years ago,
 2
    with the long gas lines at gas stations -- was that,
 3
     at least in part, a result of the output/price
4
     conspiracy by OPEC?
 5
                Well, gas lines were the -- were the
 6
    result of government policy. But an increase in
 7
    price, that was due to OPEC, yeah.
 8
                Okay. Fair enough.
9
                Have there been times where OPEC has been
10
    ineffective at raising prices?
11
               Yes.
12
               Essentially, some competition broke out
in the middle of the conspiracy; is that fair to say?
14
          A No. A couple -- one is always -- in the
```

15 conspiracies, you have disagreements between the 16 parties. 17 So some people -- even though they may go 18 and agree on the quotas, they violate them. And then you have -- in some -- in recent years, you've had 19 20 some major players, like the Russians, who aren't really members and sort of go -- go their own way. 21 22 And yet, after certain of those periods, 0158 1 OPEC at various times then was successful in raising prices as a result of its conspiracy; is that right? 2 3 Α Yes. 4 So the fact that there are occasional periods where there aren't adverse competitive 5 6 effects from a conspiracy doesn't prove there is not 7 a conspiracy, does there? 8 Correct. Α 9 Q Okay. 10 But it doesn't -- but it proves -- it 11 doesn't prove things one way or the other. It proves -- you know, at a minimum, lack 12 of absence of a conspiracy. And depending on the 13 ubiquity of it, it casts considerable doubt on 14 15 whether there was a conspiracy, whether such a 16 conspiracy was plausible. 17 As an economist, would you agree that, if 18 there were an agreement among tobacco companies that had the effect of simply reducing their output of 19 products, that that would be anti-competitive? 20 2.1 Α Yeah. 22 Do you agree that, if there were an 0159 1 agreement among tobacco --2 Pursuant to -- well, that's, maybe, a little bit too general an answer. 3 But, certainly, a -- a -- an agreement --4 5 you know, a naked antitrust sort of agreement, we're 6 going to respect output for the purpose -- because 7 we'll make more money and price will go up. Yeah. 8 Of course, that would --9 And, in fairness, that is exactly what I had in mind. 10 11 Α Right. 12 As an economist, would you agree that if 13 the tobacco companies agreed to not introduce safer 14 products, if they made such an agreement, would that 15 be anti-competitive? 16 It -- it could be. A 17 Under what circumstances would it not be? Well, one issue is effect in an 18 19 anti-competitive -- would it -- did it -- would it 20 have any effect? 21 And as you know -- I mean, there -- there 22 is -- this is a very tricky issue. 0160 1 As you know, you can have situations where industry, because of industry standards, say, 2 3 "We're going to agree not to produce widgets anymore with -- with English threads instead of metric 4 5 thread." 6 That's an agreement not to introduce 7 products. That would -- that wouldn't necessarily be 8 anti-competitive. You'd have to know the nature of

9 the situation. 10 Q Now, the example I gave here was "safer 11 products," products that are truly safer. And they 12 are, to that extent, better than other products. If there were such an agreement to -- and 13 14 it were implemented -- that is, to not introduce 15 safer products that would otherwise have been 16 introduced -- would that be anti-competitive? 17 Α Yeah. 18 And would the same be true if the products were introduced but, by virtue of the 19 agreement, they were introduced years later than they 20 would otherwise have been introduced, these safer 21 22 products -- would that be anti-competitive? 0161 1 Well, if you're talking about -- we're 2 talking about a naked antitrust agreement where, for 3 the purposes of restricting output and raising prices or whatever, we're going to agree to do that -- that 5 sounds like it would be anecdotal. Okay. And now let me go back to a more 6 7 general form of the question. Let's put aside what their intent was, whether -- whether it was an intent 8 9 to restrict the -- the quantity of -- of safer 10 products or whether it was -- whether that was the 11 ultimate goal, or whether it was because they feared 12 collateral effects on their public image if they had to admit that there had been something unsafe about 13 14 their prior products. 15 Let's put aside, entirely, what their 16 rationale is and just ask: If the companies agreed 17 to -- and did -- slow down the introduction of new, safer products -- they actually did slow down to a 18 substantial degree the introduction of new, safer 19 products -- would that be anti-competitive? 20 MR. STREETER: Objection. 21 22 I don't think that's because it's -- I 0162 mean, I can't -- I can't make a conclusion as a 1 2 matter of law. 3 I can say -- as an economist, I could 4 look at what the effect -- I could look at whether 5 the effect was anti-competitive or not. 6 If the effect was, the consumers didn't 7 get safer cigarettes as quickly as they would have 8 liked to have received them, would the effect be 9 anti-competitive? 10 A It again would be the extent. How much 11 would have been purchased? 12 If a substantial number of consumers 13 would have liked to have had that product. 14 MR. STREETER: Objection. 15 If they would have -- if they would have -- if they would have been offered at a price 16 17 and in other qualitative features that consumers 18 would have bought a substantial amount of them and 19 they actually were safer, yeah. 20 Okay. As an economist, do you have a 21 view regarding whether an agreement among tobacco 22 companies not to advertise the health benefits of 0163 1 certain safer cigarettes would be an antitrust 2 violation?

```
3
                     MR. STREETER: Objection.
 4
                Well, you asked for a legal conclusion.
    But...
5
6
                I asked -- I asked you --
7
                That -- that -- that's a --
          Α
                Yeah. Let me rephrase it. That's a fair
8
     point. I should have said whether it would be
9
10
     anti-competitive. And I will -- I will rephrase it
11
     that way.
12
                Do you have a view, as an economist,
13
    regarding whether an agreement among tobacco
    companies not to advertise the health benefits of
14
    certain cigarettes would be anti-competitive?
15
                No, not necessarily.
16
17
                In fact, the antitrust authorities in the
18
    U.S. decided that exactly such an agreement was
    not -- apparently not anti-competitive.
19
               In what -- in what context are you
2.0
21
     talking about the U.S. antitrust authorities deciding
22
    that?
0164
1
                I'm talking about the Code.
          Α
                Okay.
2
          Q
3
          Α
               Industry code.
4
                And that's -- and that -- that is a
5
     code -- is that an agreement among the companies? Is
6
     that a way -- a fair way to characterize that?
7
               Well, don't ask my legal opinion.
                We knew all the companies participated in
8
9
    the code, and at various points agreed to abide by
10
    the -- the decisions of the code and authority.
11
          Q Okay. Do you have a view as an economist
12
    whether an agreement among tobacco companies to
13
    restrict research and development to some significant
14
    degree would be anti-competitive?
                     MR. STREETER: Objection.
15
16
                That -- that depend -- that -- that
17
    depends on the nature of the research and development
    and the effect.
18
19
                Under what circumstances would an
20
    agreement among competitors to restrict research and
    development not be anti-competitive?
2.1
               Well, as I -- as I concluded in this
22
0165
1
    case, even if there was an agreement not to do
    in-house biological research on intact animals, or
2
    whatever the theory would be, that -- that such an
3
     agreement -- if the parties were free to do such
 5
    research outside their premises -- and, in fact, did
     all the time, including in their premises -- that --
 6
 7
    that an anti-competitive effect couldn't flow from
    that.
8
9
                As an economist, do you have a view
10
    regarding whether an agreement that had the effect of
11
    reducing the tobacco companies' total research and
12
    development, and the total research and development
     done by any agents or consultants they hired --
13
14
    whether such an agreement would be anti-competitive?
15
                     MR. STREETER: Objection.
16
                Well, I think the way we -- the way we
17
     analyze that in economics is to try and figure out
18
    whether there was any material consequences that --
19
     arising out of a -- out of a -- such -- out of such
```

```
20
     an agreement.
21
     I mean, it's -- it's too difficult to --
22
     it's a Rule of Reason sort of issue. You have to
0166
1
     analyze the circumstances and look at the effects.
               Well, at least this time it was you who
2
     introduced the legal concept. I say that in jest,
 3
 4
     not by way of criticism.
 5
                 But since we talked about the Rule of
 6
     Reason, is it your position that an agreement between
 7
     competitors that had the effect -- whose only effect
     was to reduce the quantity of research and
 8
     development is something to be judged under the Rule
 9
     of Reason?
10
11
                     MR. STREETER: Objection.
12
                 It's a, you know, legal conclusion. But
13
    I can think of lots situations where, clearly, from
     an economic perspective would be that there was --
14
    that there was some potential pro-competitive
15
16
     justification or normal business reason I could
17
    place.
18
                 Can you identify any pro-competitive
19
     justifications for an agreement, assuming there was
20
     one, among the tobacco companies, to restrict the
21
     amount of research they did on their own?
22
                What do you mean, "on their own"?
          Α
0167
                As opposed to research that was done by
1
 2
     outside laboratories or other people whom they might
 3
     have funded.
 4
                But the point -- see, the economic
          Α
     analysis there goes to the point of, is there --
 5
 6
     are -- if there -- if there are very good substitutes
 7
     for what's arguably being restricted and -- availing
     themselves of those substitutes, there's no economic
 8
 9
     effect.
10
                 I understand that point.
11
                 But if -- if -- if you were to conclude
12
    that there weren't good substitutes or that the
13
    substitutes were not employed enough, you would then
    get to the question of whether there was a
14
    pro-competitive justification, wouldn't you?
15
          A Well, you'd still look at a -- you'd
16
17
     still look to effect. But you looked -- you'd look
18
     into the purposes and the effects.
19
                Right. I mean, you look at the effects.
           Q
20
    You look both at anti-competitive effects and
     pro-competitive effects, if you do a
22
    Rule-of-Reason-type analysis; right?
0168
1
                     MR. STREETER: Objection.
 2
                As an economist, I would say yes.
           Α
 3
                Okay. And my question to you, then, is:
 4
    Can you identify any pro-competitive effects from an
 5
     agreement, assuming there were one, among the tobacco
     companies to restrict the amount of -- or -- amount
 6
 7
     or type of research they did in-house?
 8
                But I don't know that we'd ever get to
 9
    that point and -- in -- in an entrant. And, you
    know, if you've got -- if you have alleged agreement
10
11
    in which there's a perfect substitute and everyone's
12
     availed themselves of the substitute, we'd never
13
     even -- we wouldn't start the engine on, is this
```

```
14
     something we'd need to worry about under the
15
    antitrust law?
16
               Well, you might not get to that point;
17 but I have. And my question for you is: Can you
18 identify any pro-competitive reason for such an
19
    agreement in the tobacco industry?
               And in what, the alleged agreement that
20
21
     there was a conspiracy not to do in-house biological
22
    research on --
0169
               Correct.
1
          Q
2
          Α
                -- intact animals?
                Correct.
 3
          Q
 4
          Α
                No.
 5
          Q
                Did you ask anybody at any of the tobacco
 6
     companies whether there was a pro-competitive reason
7
    for that?
                See, I concluded that the evidence was
8
9
    inconsistent with there being an agreement and that
10
     the -- and there was no effect, in any event.
11
                 I understand that.
                 Are you agreeing, then, that if the jury
12
    winds up concluding that there was such an agreement,
13
14
    that you're not going to a trial -- say, "Ah, but
15
    there was an offsetting, pro-competitive benefit"?
16
               No. I -- my testimony is that, one, what
17
    this research is about, what's required.
                And one of the things that's required is
18
19
     that third parties absolutely have to do the research
20
     at some point or it's -- there would be no use.
21
                And that outside research of this type --
22
     it -- third-party contractors are typically the ones
0170
     that are used in industry to do this sort of
1
     research -- in most industries.
2
                And that -- and that the defendants
 3
    clearly, at all times, were very active involved in
 4
     doing such research, sometimes within their own
 5
     facilities and always with the outside facilities.
 6
 7
                So there -- if you look at what this
    research was about, how could it affect anything,
 8
9
    what they did, the role of third party -- that there
     isn't any -- there isn't any -- there -- there can't
10
11
    be any anti-competitive effect flowing from this.
12
                I understand that's your position.
13
                 And my question is: If anybody were to
14
    disagree and say, "Oh, I think there are some
15
    anti-competitive effects, " you can't point to and
16
    don't intend to point to any pro-competitive effects
17
     that should be balanced against any anti-competitive
18
     effects that somebody else concludes exists?
19
                     MR. STREETER: Objection.
20
                Well, I haven't really thought about
21
     that. I don't have an opinion about that at all.
22
                Okay. Now, you said you concluded that
0171
     there was -- correct me -- did you state that you
 1
 2
     concluded that there was no such agreement; and that
 3
    is, an agreement to restrict in-house biological
 4
     animal studies by the tobacco companies?
 5
                Well, I can -- I can't usurp -- usurp the
 6
    role of the fact finder. So I hope I was more
     careful than that.
```

```
8
                 I said that lots of the evidence is
 9
     contrary to that, that I report in my report, one,
     what is the -- what's the anti-competitive purpose if
10
11
     everyone's going to do it in a -- in a -- in a
     different way than that, which might actually be a
12
13
     more effective way of doing it -- well, what could
     possibly be the anti-competitive purpose of it? How
14
15
     could it affect output if it was a perfectly good
16
     substitute doing it outside?
17
                 For every -- virtually everybody in the
18
     industry at various times was doing what they
     supposedly agreed that they weren't going to do, and
19
     not just episodic like OPEC or, you know, in cases of
20
     Liggett and other cases -- doing it for a very long
21
22
     period of time.
0172
1
                 In your -- I'm sorry. I didn't mean to
           Q
 2
     cut you off.
 3
                 So there's just -- you know, when you
 4
     were talking before about the OPEC and everything --
     you know, if everyone has learned in the Northwest
 5
 6
     Laborers trial -- if everyone's cheating all the
 7
     time, it's kind of hard to -- for an economist to
 8
     argue that there's an effective conspiracy.
 9
                Now, you used the word "effective
10
     conspiracy" there.
11
                 In essence -- you know, in your role as
     an economist -- are you focusing upon -- I'm only
12
     distinguishing between two things, and ask you if
13
14
     you're focusing on one rather than the other.
15
                 The first is whether there was an
16
     agreement; and the second, it would be whether, given
17
     the agreement, there in fact was an economic
18
     impact -- that is, was a successful the agreement was
19
     successfully implemented.
20
                 Were you focusing on one of those to the
21
     exclusion of the other?
22
           Α
                 No.
0173
1
                 Okay. Let's go back to the first, then,
     as to whether there was an agreement.
 2
                Have you seen documents that refer -- oh,
 3
 4
     tobacco company documents, that refer to the
 5
     existence of such an agreement?
 6
           Α
                In a general as sense, yes.
 7
                 And do you -- did you disbelieve the
           Q
 8
     documents?
 9
                 Well, you know, I can't -- in fact, I --
10
     I reviewed the documents. And I took those into
11
     account.
12
                 But what I can bring to it as -- because
13
     I don't have personal knowledge -- and, in fact, the
14
     documents were usually written by someone that didn't
15
     have personal knowledge of -- of when -- when this
16
     alleged agreement began.
17
                 I can, as an economist -- with respect to
18
     whether there was an agreement, I can use economic
19
     and other logic and evidence to say, "Why would you
20
     have such an agreement? It isn't economically
21
     plausible."
22
                 And if you know -- if you know it's not
0174
     economically plausible, if the parties are rational
 1
```

and they understand it couldn't have an effect, why 2 would they have such an agreement? 3 4 That's the sort of economic logic and 5 facts you can bring to bear. 6 If, in fact, such an agreement would have 7 an effect, in view of the learned circumstances that led you to believe -- "Oh, such an agreement really 8 could have an effect," then would that alter your 9 10 conclusion about whether or not a conspiracy -- such 11 a conspiracy existed? It would depend on what the effect was. 12 13 Let's assume you learned that such a conspiracy could have the effect of limiting the 14 amount of information -- strike that. 15 16 Let's say that the effect of such a 17 conspiracy might be to reduce the likelihood that a 18 cigarette company would break ranks and admit that 19 cigarettes had substantial adverse health effects. 20 Let's assume --21 MR. STREETER: Objection. -- that the jury concludes -- and, you 22 0175 know, it's not for you or for me to usurp their 1 prerogative, so we're just going state it as a 2. 3 hypothetical -- let's assume the jury concludes that 4 that would be the effect of this type of agreement. 5 Then, under those circumstances, could you as an economist conclude that an agreement --6 7 that such an agreement did not exist? MR. STREETER: Objection. 8 9 Well, the fact finders can determine 10 whether they think there was an agreement or not. 11 My -- what I can testify to and my expertise is that, what the nature of this agreement 12 would be about and -- and the evidence that indicates 13 it was consistent or not consistent with it, and 14 15 what -- what possible effect it could have. 16 And I could talk and, if in that 17 particular case, if that's what the jury believed was 18 the effect of the conspiracy, I can speak and have 19 spoken in my report exactly as to what -- what would 20 be the -- what would have -- what would have been the effect of that. 21 Um-hum. Now, in your report, you talk at 22 0176 various places about the impact or lack of impact, 1 certainly, health advertising would have had upon 2 3 American smokers; is that right? 4 I talked both what the -- no. I talk 5 about what the nature of health advertising could 6 have been, given the realities of FTC regulation. 7 Q Okay. 8 And what -- and what people rely on with 9 respect to health -- important health issues, like 10 cigarette. Let's, you know, put aside for a second 11 12 the issue of what advertising was proper under FTC 13 regulation; and just focus upon the effect of advertising, assuming it had occurred -- okay? --14 15 taking issues one at a time. Do you have a view regarding whether more 16 17 explicit advertising by the cigarette companies about 18 the adverse -- about cigarettes generally having

```
19
     adverse health consequences would have had any impact
20 upon smoking prevalence?
                I'd have to -- I'd have to know what the
2.1
22
     ad was. I don't know. I'd have to -- I don't know.
0177
1
               Well, let me ask you whether it would be
2
     possible to structure ads that would have such an
 3
     effect.
 4
                That would have effects?
          Α
 5
                That would have -- would it be possible
    to structure advertising in the tobacco industry,
 6
 7
     over the period 1954 to the present, regarding the
    health effects of smoking, that would have had a
8
9
     substantial negative impact on the number people
10
     smoking?
11
                     MR. WILLIAMS: Objection, vague.
12
                     MR. STREETER: Objection.
13
                 That -- that's just too vague.
14
                 My conclusion is that there was an
15
    overwhelming -- going back to the '50s, there was an
    overwhelming amount of publicity. So the people were
16
17
    confronted with -- we know that people in media --
    you know, from survey information -- people formed
18
19
    the leaks of harmful effects, going back well into
20
    the '50s.
21
                 And it's hard to see what -- what
22
   anything could have added to that.
0178
1
                So you can't envision anything that could
 2
    have been said by the tobacco companies that would
 3
    have caused people to smoke less; is that your
 4
    position?
 5
                It would have been just in addition to
     overwhelming -- let's remember the situation here.
 6
7
                There was no -- for many, many years,
    there were no explicit health advertising -- explicit
8
9
    health advertising in the U.S., other than implicit
     ones that were condoned by the Surgeon General and
10
11
    the FTC.
12
                 That's -- that's not just true in the
13
    U.S. That's true worldwide.
14
                There was a overwhelming amount, going
    back to the '50s, of media telling people there are
15
16
     adverse health consequences.
17
                We know -- we know from consumer surveys
18
    going way far back that, already by the '50s, the
19
     Surgeon General was -- very rate of belief by
20
     consumers.
21
                And we see what happened to prevalence.
22
    We know that -- we know that a lot of people who did
0179
1
    believe that it was a health problem choose to smoke
     and continue to smoke.
2
 3
                 So I don't -- no, I don't see any basis
 4
     from an historical record that it would have had any
 5
     substantial effect.
                Okay. Let's move away from the word
 6
    "advertising," and just talk about the public
 7
     statements by tobacco companies.
 8
 9
                Do you have a view regarding whether the
10
    tobacco companies could have made any public
11
     statements regarding the relationship between tobacco
12
     and health that could have, to some significant
```

```
13
    degree, decreased smoking in the United States --
14
                    MR. STREETER: Objection.
15
               -- at any time between the period 1954
16
     and present?
17
                     MR. STREETER: Objection.
18
               No, because -- well, I have studied that
     in the report. We can do -- we can do various case
19
20
     studies. We can look at what -- what has happened in
21
     recent years, with various companies changing their
22
     public position on smoking and health.
0180
                So we have -- I've done -- tried to look
1
     at this empirically. And in a number of ways, I've
2
     looked at what people were exposed to.
 3
 4
                I've looked, what happened in recent
 5
    years in the U.S. I've looked at what happened
    historically in other countries, where the industry
 6
 7
     and the government authorities took somewhat
8
    different positions on this.
9
                And it -- no, there's not -- there's not
10
     any credible evidence that --
11
               Okay.
          Q
                -- would have made any difference.
12
          Α
13
                Now, between -- I'm sorry.
14
                     MR. STREETER: Were you finished?
15
                If I ever cut you off, please indicate to
16 me -- sometimes it's a little hard to tell when the
    question ends. But I'll -- I'll always back off and
17
18
    let you finish.
19
                -- any difference in an empirical sense.
20
                I'm not saying whether people would have
     felt better, but for. That's not my inquiry.
21
22
                I'm saying: Is there any evidence at all
0181
    whether it would have significantly affected
1
     prevalence, quit rates, start rates? And the answer
2
 3
    is no.
 4
                Now, between 1954 and 1964, about what --
     could you quantify the decline in the -- in the
 5
 6
     number of percentage of smokers?
 7
          A Well, prevalence fell 40 percent, if I'm
    right, between '65 and '87. It's fallen further
8
9
     since that time --
              Okay.
10
          Q
11
          Α
                -- substantially.
              Now, if in 1950 -- is it your position,
12
13
    that, if in 1954 the six tobacco companies had come
14 out in response to the various animal studies and
     said, "We've looked at the issue. And you know what,
15
     the researchers are right. If you smoke cigarettes,
16
17
     it will probably kill you" -- is it your position
18
     that that would have had no substantial impact on
19
     smoking prevalence?
20
                     MR. WILLIAMS: Objection, vague.
21
                     MR. STREETER: Objection.
22
                All right. You're mixing a couple of
0182
1
    things here, which is: In 1954 nobody knew. Various
     people had opinions. There was no -- there was no
 2
 3
    basis of any scientific conclusion. That might
 4
    have -- be basis on "prudency" of saying, "You know,
    according to cost benefit tests -- probably be a good
     idea if you didn't do this."
```

```
7
                Right now -- I'm sorry again. I --
 8
    please --
9
         A
                There wouldn't be any basis for making
10
     such a conclusion.
11
          Q Whether or not there was a basis -- and
     we might, of course, disagree as to whether there was
12
13
     a basis -- let me ask you about different dates.
14
                 Is it your position that, if the tobacco
15
     companies had come out in 1954 and said, "We've
     looked at the evidence, and we have concluded that
16
17
     smoking will probably kill you," that there would
    have been no substantial impact, in the coming years,
18
19
     on smoking prevalence?
20
                      MR. WILLIAMS: Objection.
                      MR. STREETER: I'm going to object
21
22
     to the question.
0183
1
                 That's much too complicated.
                 What -- what would they -- you know, if
 3
     they said, "And because of that, we decide we're not
     going to sell cigarettes anymore, " wouldn't -- might
 4
 5
     that -- might that have had an effect?
                Well, let's assume they continue
 6
 7
    marketing everything. They say, "We know why we like
 8
    cigarettes and are willing to take the chance of
 9
    dying -- or are so addicted that you can't avoid
10
    it -- you know, they -- you're going to buy --
    cigarettes whether you like it or not -- but, yes, it
11
12
     is true that if you continue to smoke it will
13
    probably kill you"?
14
                      MR. STREETER: Objection.
15
                 Let's assume they made that statement in
16
     1954.
17
                 Do you have an opinion regarding whether
18
     there would have been any substantial impact in the
     number of people smoking over the next several years?
19
20
                      MR. STREETER: Objection to form.
                      MR. WILLIAMS: Objection, vague.
21
22
                 One thing that -- I mean, I -- I -- I
           Α
0184
    have difficulty accepting the hypothetical, because
1
    there wouldn't have been any basis at that point to
 2
 3
     do that. Okay?
 4
                And that's why the public health
 5
     authorities were so -- were so cautious at that time,
    because -- because it would cause tremendous turmoil
 6
 7
     if the public health authorities conclude it. And
 8
     that's why in '64, finally, they formed a committee.
                But I can only look at this -- I can look
 9
10
     at the evidence as an economist. And we can look
11
     at -- the international evidence is important here.
12
                 We have -- in the U.S., among major
13
     countries, the industry was, on average, more
14
     aggressive on the health and smoking issue than most
     of the -- the advanced countries in -- in putting
15
16
     forward an industry position that causality wasn't
17
     proved.
18
                Now, if we look -- so we have some
19
     qualitative -- we look, what happened in the U.S.
20
     versus what happened in U.K., for example, where
21
     the -- and other places in Europe -- where the
22
     industry took a much more passive approach and just
0185
```

said, "Let -- let the scientific people, you know, 1 debate this. And we're going to -- we're going to 2. stay out of it, " pretty much. 3 4 What you find there is no demonstrable 5 evidence. In fact, prevalence fell faster in the 6 U.S. than -- than most other places. So at least $\operatorname{--}$ when you look at the 7 8 actual evidence that's available and look at other 9 incidents in -- internationally -- and look at what 10 people were exposed to and what they believe, there 11 isn't any, you know, credible empirical evidence to indicate that it would have -- that it would have 12 made a substantial difference. 13 It would have been a big story, just like 14 it's a big story today, just like the Brown & 15 16 Williamson documents being bleak, and Liggett, you 17 know, agreeing that cigarettes were addictive, and a recent move by other companies of -- of not -- of not 18 challenging the causality conclusion. 19 20 It -- it -- it's a big story. But all the empirical evidence is, it doesn't affect, 21 22 significantly, smoking behavior -- because in the 0186 1 end, people rely, as you'd expect -- they rely on the 2 medical experts and the government officials on what 3 the -- what the facts are. 4 Given all that, to go back to my question: Is it your opinion that, if there had been 5 6 such a statement by the tobacco companies in 1954 --7 that is, a statement that smoking would probably kill 8 people -- that there would -- is it your opinion that there would not have been a substantial change in 9 10 smoking prevalence as a result --11 MR. WILLIAMS: Objection. Substantial, long-term change --12 13 14 -- in smoking? 15 No. The evidence is -- it would have 16 been a big story. 17 Okay. And --18 And it would have caused -- it would -it would have -- it would have been notable. And it 19 would have been played up. But it wouldn't have had 20 21 any significant, long-term effect. 22 And would the same be true if, as opposed 0187 to saying, "Smoking will probably kill you," the 1 public statement had been, "We've concluded that, if you smoke, your chances of getting lung cancer will 3 4 increase by 1000 percent"? 5 Would your -- would your answer be the 6 same as to the effect on smoking prevalence? 7 Α Yeah. 8 Okay. And would your answer be the same 9 if they came out and said, "We concluded that cigarettes are extremely addictive product. If you 10 start smoking, you may find it impossible to stop 11 12 smoking"? 13 MR. STREETER: Objection. 14 Is your answer the same; namely, that 15 that would not -- if those statements had been made in 1954, then it would not have had a substantial, 16 17 long-term effect on the percentage of -- on smoking

```
18
   prevalence?
19
               My opinion is --
         A
20
                      MR. WILLIAMS: Same objection.
21
                 -- on that matter, specifically, that
22
     consumers, in terms of what was important for their
0188
     own lives, absolutely knew that. They didn't have to
1
     have anybody tell them. They knew, from their own
 2
 3
     experience, their family members or acquaintances,
 4
     that that was true.
 5
               Did people who had not yet started
 6
     smoking all know that?
 7
                They -- they -- they had parents or
     familiar members or relatives or acquaintances that
 8
 9
     they -- that they, on average, knew that that was
10
    true.
11
                Now, my questions have thus far related
           Q
12
     to the year 1954. I'm going to jump ahead in time to
13
     1964 -- and if it's possible to do this all in one
14
     question, I'll do it; and if not, I'll break it out
     into separate questions -- but would your answers to
15
16
     the questions I just asked you be the same if I
     substituted "1964" for "1954"?
17
                      MR. WILLIAMS: Well, the objections
18
19
     would be the same.
20
                      MR. ANGLAND: I incorporate them by
21
    reference. That only seems fair.
22
                You get more mounting empirical evidence
0189
 1
    over time that supports my conclusions. You get more
     qualitative differences within the U.S. and when you
 2
 3
     compare across countries.
 4
                 When you get much more mounting evidence
     that it didn't make -- that it wouldn't make any
 5
     difference. Not that it might not be a big story,
 6
     although at some point by the '70s it wasn't even a big story -- when it happened, but -- necessarily --
 7
9
     but -- so the evidence gets stronger over time.
10
          Q Okay. And again, in a way that may
11
     shorten some of this.
12
                 Is it your position that there is
13
    basically nothing the tobacco companies could have
14
    said about the health consequences of smoking at any
15
    time between 1954 and the present that would have had
16
    a substantial effect in reducing smoking prevalence?
17
           Α
                Yes.
18
           Q
                Okay.
19
                Because as -- by their actions -- you
20
    know, we left out a whole part of this that you
21
     didn't ask -- by their actions, you know, they
22
     communicated what you're talking about to consumers.
0190
    That's what the tar and filter derby was all about --
1
 2
     exactly about.
 3
                Did every smoker in the United States in
 4
    the year 1980 believe that smoking caused lung
 5
     cancer?
 6
 7
                 Were there even 10 percent of the smokers
 8
    in the United States in 1980 who had some skepticism
    about whether smoking would have had -- substantially
 9
10
     increased their chance of lung cancer?
11
                      MR. STREETER: Objection.
```

I don't remember the numbers, but it 12 13 wasn't just one person. There were -- there were --So, if the tobacco companies themselves 14 15 came out and said, "You know what? We're sorry, but it does" -- are you saying that it would have had no 16 17 impact? Why would it not have had an impact upon 18 19 those people who, in fact, but for such a statement, 20 doubted that smoking caused lung cancer? 21 MR. TURKEN: Objection. 22 MR. WILLIAMS: Lacks foundation. 0191 You're assuming the conclusion. 1 2 There were people in 1980 and people 3 today that still don't believe that. They don't 4 believe anyone on that, and maybe because they refuse to believe or they may actually know the science and 5 6 they're purists. 7 And they say, "Well, it's statistical." 8 And more to the point -- you know, the problem in the consumer surveys, what is really important is whether 9 people believe themselves. That's the critical 10 11 issue. 12 And it's not surprising that people who 13 have grown up in families with lots of smokers, and 14 no one ever got lung cancer -- some of those people 15 are going to believe they're not going to get it. 16 And in fact, it's true for a lot of them -- because genetic -- and other environmental 17 18 predispositions are very important factors. 19 So there are lots of reasons why people 20 have the belief, and they hear opinions from all 21 sorts of people. 22 And is it your position that it would be 0192 impossible for the tobacco companies themselves, by 1 2 making statements against their own interests, in a 3 sense, by admitting their products were harmful, to sway the opinions of any of these people, so as to 4 5 get them to believe that smoking was likely to cause such bad effects? 6 Well, I -- same thing. I've looked at 7 the evidence -- if you look at historical evidence in 8 9 the U.S. and you look at other countries, what has 10 happened, and what the industry -- and various 11 companies' approach they've taken. 12 And if we look at what's happened in 13 recent years, where the companies have taken a very 14 different position than what they have historically, 15 there is no evidence that it's affected anything and 16 it's affected the way people think about the 17 cigarette companies or what they believe about health 18 risks of smoking. 19 And does that apply also to people who 20 have not yet started smoking but are about to start? 21 Well, this is -- it's an interesting 22 issue -- because if you actually track what's 0193 1 happened since the big events which began with the 2 release of the Brown & Williamson documents and all 3 that has happened since then, what we have seen in the data -- and they're not related to one another --5 we've seen the data and -- you know, child initiation

```
rates in the U.S. and in many -- in a number of other
 6
 7
     countries -- seem to be going up.
 8
                 I don't think they're causally related;
 9
     but it clearly hasn't reversed -- it hasn't had
     that -- that's right, because everybody -- you know,
10
     they believe what they believe, and they believe it
11
12
     for a long time.
13
                 The decline in smoking prevalence since
14
     1954, I believe earlier you said it was due, at least
15
     in large part, to the increased information about the
16
     adverse health effects of smoking; is that right?
17
                 And demographic changes, yeah.
                 Okay. But a substantial portion was due
18
19
     to information about the adverse effects of smoking;
20
     is that right?
21
           Α
                 I think a combination.
2.2
                 The most important things was information
0194
     and people realizing that they were going to live a
1
 2.
     lot longer than people thought they were going to
     live back in the '40s and '50s. And so, they worry a
 3
     lot more about a disease that they might get several
 5
     decades in the future.
 6
                 And during this period of time, as more
           Q
 7
     information was coming out regarding adverse effects
 8
     of smoking, tobacco companies would often argue that
 9
     the new evidence wasn't persuasive; is that right?
                      MR. STREETER: Objection.
10
11
                 Yeah.
12
           Q
                 And is it your position that nobody's
13
     view on the subject was influenced by the fact that
    the tobacco companies said, "No, the evidence is not
14
15
     persuasive"?
16
           Α
                 Well, I don't know.
17
                 Was there any single person?
                 I think the tobacco company people,
18
19
     largely, you know, believed that it wasn't
20
     persuasive. I think that they spoke in general,
21
     based on what -- probably what they believe.
22
                 And you'd say, "Well, why do you say
0195
 1
     that?"
 2
                 One, that they had experts -- they had
 3
     experts that said, "No, it's not true. It's not
 4
     proven."
 5
                 And two, unlike other industry
     situations, they overwhelmingly walked the walk.
 6
 7
     They were smokers. They -- I'm not surprised that
 8
     they believed, as some smokers believe, that it's
 9
     not -- for them it's not a risk.
10
                 Maybe it is for someone else.
11
                      (Discussion off the record.)
12
                 You talked about a 40 -- roughly, a 40
13
     percent decrease in smoking prevalence over a certain
14
     period of time, a few minutes ago.
15
                 Do you recall that?
16
           Α
                 Yes.
17
                 Do you have -- did you do any
18
     mathematical analysis that suggests that that
19
     decrease would not have been, say, 50 percent or
     higher if the evidence regarding the bad effects of
20
21
     smoking had not been countered by claims of the
22
     tobacco company that the evidence really wasn't
```

0196 credible and persuasive? 1 2 Α Yeah. 3 MR. STREETER: Objection. 4 What was that mathematical analysis? 5 Well, I see you've read my report. We've done a lot of things. We've analyzed various 6 7 historical incidents to see whether they moved the 8 needle in that regard, and that a lot of those are 9 recent, in the U.S. 10 But some of them are historical in other countries. And a lot of it is historical evidence of 11 comparing what has happened in the U.S. and 12 13 elsewhere. 14 And we've come to the basic fact, the 15 prevalence is, on average, lower than other countries that are comparable. It's lower than other 16 countries, in which -- at various times have had less 17 18 aggressive public policy with respect to smoking and 19 health. 20 It would be -- it's totally speculation, 21 with total -- without foundation, given, if you look at all the evidence to make such a conclusion, all 22 0197 1 the evidence points strongly the other direction. 2 You have to invent it to come to a 3 conclusion like that. 4 Now, in terms of statements by the tobacco companies, in one form or another, that 5 6 smoking had adverse effects -- I think the example 7 you point to in your report is the release of certain documents, the publication of certain documents in 8 9 1995; is that right? 10 And Liggett, and what has happened since with Philip Morris and Brown & Williamson and RJR. 11 12 Those were -- all of them were in the 13 1995-to-the-present period; is that right? 14 Α Those were, yeah. 15 O Okay. Do you have any basis for 16 concluding what, if any, the effect would have been 17 if those same statements had been made, not in 1995, but in 1965? 18 19 Yeah. I've told you: I've looked -- you Α know, if you look across countries, you have a 20 21 qualitative -- you know about economics and you can 2.2 say, "Okay. If -- if you have a range of variables 0198 1 between here and here, it tells you something between 2 0 and .5, qualitatively." 3 It also tells you something about -- if 4 the range of variable was between 0 and 1. 5 As I've said, if you look across 6 countries, the -- behavior and a strategy of the 7 industry, tobacco industry -- different companies 8 markedly differ. 9 And, in fact, what actually happened 10 here, from looking at the evidence, is that the 11 position the industry took in the U.S. in the early 12 years made the government and scientific industry and 13 the media much more aggressive on smoking and health 14 than they were in countries where the industry took a 15 more passive view. 16 And in fact, what actually happened in

```
the U.S. -- there was much more controversy. You
17
    have the 1957 hearings, the '64 Surgeon General's
18
    report. You have all the hearings. You have
19
20
    tremendous media.
21
                It -- a significant part absolutely was
    stimulated and exacerbated, from the industry's point
22
0199
1
    of view, by the approach the industry took.
2
                So if we look at other countries where
 3
    the industry sort of didn't really take a position,
 4
     as they did in the U.S., we see that, in fact,
    prevalence fell faster here. Lots of things happened
 5
 6
    faster.
 7
                And that's part of the competitive
    process. In the competition for information, that's
 8
9
    what you'd expect.
10
               Now, when you compare the United States
          Q
11
    to other countries, with respect to smoking
12
    prevalence there are a variety of factors that
13 influence the prevalence levels in the different
    countries; isn't that right?
14
                Well, the major -- there are major
15
    factors which are public policy, and cultural
16
17
    factors, and to a lesser extent income levels and
18
    price levels.
19
                There's also a question about the extent
20
    to which in that country health information has been
    disseminated regarding the adverse effects of
2.1
    cigarettes; isn't that right?
22
0200
1
                That can have an effect, yes.
          Α
 2
                There could also be differences regarding
 3
    how health conscious people in different countries
 4
     are; isn't that true?
 5
          Α
                It can, yes.
               There could also be a difference
 6
 7
    regarding the longevity expectation in different
    countries, consistent with what you said before about
8
    the United States; isn't that right?
9
10
          A
               Correct.
11
                And there are scientific methods
    available to try to test for the effects of these
12
    different things, such as regression analysis; isn't
13
14
    that right?
15
          Α
                No. I've done a scientific analysis --
16
   but you're trying to -- to a regression analysis --
17
    you're essentially scoring a lot of qualitative
18 evidence -- is very tricky to do rather than using
19
    quantitative evidence.
20
                I've done a scientific analysis. I've
21
    taken into account all these factors -- it's really
22
    very easy.
0201
1
                Dr. Harris says, "but for" prevalence
 2
    would be at 3 percent.
 3
                Well, that -- there isn't any possible
    support in the world for that. You cannot
 4
 5
     possibly -- if you look at the rest of the world,
 6
    there is no possible scenario in the world.
 7
                If you ban cigarettes, prevalence
    wouldn't be at 3 percent -- because of what you'd
 8
 9
    have in bootleg and roll your own. We know that from
10
    the European evidence. There is no possibility
```

```
11
     whatsoever.
12
                 So we can see -- I've looked across a
13
    range of countries, countries that are close in
14
    income and demographic and cultural characteristics
    to the U.S., countries with much more aggressive
15
16
     public health policies with respect to advertising
17
     and other sorts of things.
18
                 So we have all sorts of dimensions.
19
                 If you look at the U.S., if anything,
20
     prevalence is lower in the U.S. There is simply no
21
    basis in the data to support a conclusion that
    prevalence would have been significantly different.
22
0202
                In making what is, in essence, a
1
 2
    quantitative judgment like that, is it in your view
 3
     sound economic -- sound economics to proceed, not by
 4
     doing an equation, such as using regression analysis,
 5
    but instead looking at these factors and drawing a
 6
     judgment?
 7
                 Using sound analytical procedures, a
     statistical analysis -- it is not a panacea. A
8
 9
     statistical analysis requires you to specify a model
     and, when you have qualitative data, score the data.
10
11
     That's really -- that's very sensitive to the result.
                 Now, you can have situations where it's
12
13
     so obviously true, because of the range of variables
14
    that affect -- and what you're comparing, like this
     case -- and what's being proposed would have happened
15
    "but for" -- that you can certainly, on comfortable
16
17
     grounds, make such a conclusion.
18
                 That's a multi-variant analysis.
19
    Economists can do multi-variant analysis, and they
20
    don't have to put numbers in the machines and run
21
    regressions. And many cases, that's really not
22
    possible.
0203
1
                So in other words, an equation is not
 2
    necessary, in your view, to reach a sound economic
     opinion on this issue, even though that it, in a
 3
 4
     sense, involves a quantitative answer?
 5
          Α
                Yes.
                And it would be fair for Dr. Harris to do
 6
 7
    the same thing, wouldn't it?
 8
          Α
                 To do what?
9
          0
                 To not necessarily use an equation if he
10
     otherwise had sound analysis?
11
                      MR. STREETER: Objection.
12
                      MR. WILLIAMS: Objection.
13
                      MR. ANGLAND: I withdraw the
14
    question.
15
                      Lunch break?
16
                      VIDEOGRAPHER: Off the record at
17
     1:09.
18
                      (Whereupon, at 1:09 p.m., a lunch
19
    recess was taken.)
20
21
22
0204
1
                       AFTERNOON SESSION
 2
                                             (1:59 p.m.)
 3
                      VIDEOGRAPHER: We're back on the
 4
     record at 1:59.
```

```
5
                     MR. ANGLAND: Let's see, Counsel,
 6
    you had a comment to make.
 7
                     MR. STREETER: Right. I just wanted
 8
     to say that I wanted to apologize for the confusion
     earlier with respect to which cases we had a dispute
9
     about compensation issues and which we don't.
10
                      With Heather's help, I've learned
11
12
     that the defendants are hereby withdrawing their
13
     direction not to answer with respect to all cases
14
     except the Minnesota litigation.
15
                     So you're fee to ask him about
16
     compensation issues with respect to any issue -- any
17
     case, except the Minnesota case.
                     MR. ANGLAND: Okay.
18
19
                      BY MR. ANGLAND:
20
                 Can you tell me, Dr. Scheffman, putting
21
     aside the Minnesota case, what your total
22
     compensation has been from the tobacco companies in
0205
1
     connection with smoking/health-related litigation
 2
     work?
 3
                So that I do the best I can to answer,
     I've never actually -- I've never looked at that.
 4
 5
                But I would guess it's something over
     300,000.
 6
 7
                Okay. And that excludes the Minnesota
 8
     case; is that right?
9
          Α
                Yes.
10
               The -- the Minnesota case was the first
11
    of the cases you worked on; is that right?
12
          Α
                Yes.
13
           Q
                Can you estimate the amount of
14
    compensation that LECG has received -- again, putting
    aside the Minnesota case -- in connection with the
15
    smoking/health-related litigations on which you have
16
17
     worked?
18
                Not with any precision, but I suspect
19
     it's something around $1 million.
20
                Okay. I have had the reporter premark as
21
     Scheffman Exhibit No. 1, a document entitled "The
    Report of Professor David T. Scheffman"; and it
2.2
0206
1
     should be sitting over there in front of you,
 2
     Dr. Scheffman.
 3
                Would you identify that document for me?
 4
                That's the -- that's the report I
 5
     submitted in connection with this matter.
 6
               Did you write the report yourself?
 7
                Yeah, in a general sense. I -- I did the
     last draft. The report, as you can tell, if you have
 8
9
     seen other reports, has -- incorporates in various
10
     ways things from other reports.
11
          Q
                Who did the drafts prior to the last
12
     draft?
13
                 It was a -- it was a group effort.
14
                 I have a couple people that work closely
15
     with me on these cases, and we sort of looked at the
16
     complaint in this matter. And we thought about what
17
     we had in other reports that was relevant, and made a
18
    decision of, you know, what -- what things might be
19
    put together as a draft.
20
               Did you receive comments from anybody on
21
    your -- any drafts of your report?
```

```
22
           Α
                Outside LECG?
0207
 1
           Q
                Yes.
               Not that I recall.
           Α
 3
                Did you get drafts of your report to
     counsel -- before you gave them your final report --
 4
     to counsel for the tobacco companies, before you gave
 5
     them the final report?
 6
                Yes.
 7
           Α
 8
                Okay. Did you receive any comments on
 9
     those draft reports from counsel?
                I don't recall any.
10
                 Okay. What is on my copy an un-numbered
11
     page, but it includes paragraph 7 -- I think it's
12
13
     probably page 2.
14
                Did you find paragraph 7, Dr. Scheffman?
15
                Yes. Yes.
           Α
16
                Okay. You mention that -- you state
17
    there that you incorporate, by reference, certain
18
     other expert reports and materials used in your trial
19
     testimony.
20
                 Is there anything in those other
21
     materials -- are there any conclusions, first of all,
2.2
    in those other materials that you're including as a
0208
1
    conclusion in this case, that you don't spell out
 2
    somewhere else in this hundred pages of -- of text?
 3
                Well, I think I probably mention anything
     as to my conclusions. It went out in this thing --
 4
 5
     and some of my reports dealt very extensively with a
    number of issues, which are just dealt with in
 6
 7
     summary form here.
 8
               Okay. Which issues are those?
           Q
 9
           Α
                 I had done an extensive review of the
     press releases of the TI and the TIRC in connection
10
     with Minnesota litigation.
11
12
                 I had done an extensive review of the --
13
     of the media, of what was in -- of what people were
14
     exposed to in connection with the Minnesota
15
    litigation.
                 I had done extensive research -- somewhat
16
     in connection with Minnesota, and more in connection
17
     with Northwest Laborers and Ohio matters on
18
19
     international.
20
                 Evidence relating to other countries.
2.1
                 Things I -- those are the major things I
22
     can remember right now.
0209
1
                Okay. I asked you earlier today whether
     certain types of agreements would constitute
 3
     anti-competitive agreements from the point of view of
 4
     an economist; and there's one I neglected -- one I
 5
     neglected to include.
 6
                 Do you have a view regarding whether an
 7
     agreement among competitors that they will share the
 8
     results of any innovations that they reach in their
 9
     separate research could be anti-competitive?
                It's possible, but that -- that would --
10
    that would definitely require a great deal of
11
12
     elaboration of the issues.
13
               Okay. A mechanism through which it might
14
    be anti-competitive would be if the incentive of each
15
     company to do the research was reduced because it
```

knew it didn't get to, if you will, monopolize the 16 17 results of the research; is that right? That's a -- that's one possible 18 19 theoretical conclusion. 20 The other is that they share the costs 21 and the benefits, and you actually get more. That's why we see all sorts of joint venture and research 22 0210 1 consortium activity, actually. 2 Now, to be clear, I'm distinguishing the 3 agreement we talked about from a research consortium, where people actually pool their efforts, integrate 4 in some way, and collectively do research. 5 Are -- so with that distinction in mind, 6 7 if you will, a naked agreement to share the results 8 of research on the one hand, which is what I'm 9 talking about, as opposed to joint research effort 10 where they get together in the same laboratory and 11 commonly fund an effort. 12 Are you aware of cases of the former -that is, the sort of bare agreement to share the 13 14 results of their separate research -- that exists in the U.S. industry today that you think is not 15 16 anti-competitive? 17 Α Sure. 18 Again, it's quite common -- but I don't know what you mean by "naked" -- it's quite common 19 for parties in joint ventures or R&D -- I mean, 2.0 21 not -- not R&D consortium. 22 I think there might be some joint 0211 activity; but there's an agreement that whatever each 1 party comes up with independently will be -- will be 3 shared. Um-hum. Do you know if there have been 4 5 any antitrust challenges to such proposed agreements? 6 A I think there have been antitrust 7 challenges to almost everything. I just can't remember -- I can't remember right now. 8 9 Fair enough. 10 Can you point to you any industries in particular where that -- the type of agreement we 11 just talked about, namely where the companies agree 12 13 that they will just share with each other the results 14 of their separate research -- can you recall any 15 industries where that's going on now? It's very common in industries where 16 17 there's a lot of joint activity, cross-licensing --18 other sorts of things -- to have as part of the things that -- agreement to share -- what parties 19 20 might arguably come up with independently. 21 And can you point to any particular Q 22 industries? 0212 1 Well, I -- yeah, lots of things in 2 Silicon Valley and telecommunication and things have -- you know, it's a -- it's -- it's not 3 4 uncommon part of cross-licensing or other sort of 5 joint activities to have things, to have -- to have 6 such provisions. 7 Q Let's stick with Silicon Valley as the 8 first example you talked about. 9 What -- what situations are you aware of

```
where there is such an agreement; namely, an
10
11
    agreement that anything one firm gets out of -- on
12
   its own research commits that it will share with the
13
    others?
                Well, it's -- I'm talking about --
14
          Α
15
                And when I say Silicon Valley, I'm using
           Q
     that in the generic sense. I don't care if the firm
16
17
     is in California or not.
18
                Well, I don't know that I can speak --
19
    because of confidentiality. I'll see if I can think
20
    of a example.
                You know, it's common -- if you have some
21
    sort of technological -- technology-sharing
2.2
0213
1
    agreements they -- because if -- cross-licensing,
2
    licensing, and other sort of things.
3
               You can have agreements that -- not share
4 mayrld, were members of
21 OPEC, were they?
2.2
          A Correct.
0217
1
           Q If you look at the bottom of page 11 of
2
     your report, in particular paragraph 33 -- I just
 3
    have one small question.
 4
                Why don't you look at that paragraph
 5
     first. And that includes the carryover onto page 12.
 6
          Α
                Yes.
 7
                On the bottom line of the text on page
     33, you state, "Plaintiffs have not identified any
 8
9
     competitively significant piece of information that,
10
     if disclosed, would have made any difference to
11
     smokers' opinions on smoking and health or to the
12
     state of scientific knowledge."
13
                Did I read that correctly?
14
                Yes.
          Α
               Can you explain what you meant by -- by
15
16
     the word "competitively" in that context?
                Well -- some of these cases, like this
17
18
    case, are both a combination of antitrust case and a
19
    RICO case. So, competitively significant from the
20
    point of view of antitrust.
21
                But I think that -- and this may be
22
     language I incorporated from a case that was a little
0218
1
    more strictly, apparently, an antitrust case.
                I would say that I could remove
2
3
     "competitively" from this statement.
 4
               You preempted my question.
 5
                I just wanted to find out if you believe
 6
     the statement is true, even if the -- the modifier
 7
     "competitively" is removed from the statement.
8
                Well, I would -- yeah, I'd be -- well,
           Α
9
    "competitively significant," actually -- you know,
10
    I'd have to reword it a little bit more carefully,
11
    because the word -- because "competitively," in some
12
     sense, means "substantial."
13
                I'm not saying that some particular
14
     smokers' opinion could have changed in some "but for"
15
     situation. I'm saying that any -- any significant
16
    number of smokers' opinions would have been changed,
17
    clearly.
18
               From an economist's view, in a case
19
     challenging a "per se" violation of the antitrust
```

```
20
     laws, is it necessary to define the relevant markets?
21
                 MR. WILLIAMS: Objection.
22
               Well, that's a -- that's a legal
0219
1
     conclusion. So, I don't --
              When you make that statement in paragraph
2
     37, then, on page 13, are you speaking beyond the
3
     area of your expertise?
4
          A You're talking about paragraph 37?
5
 6
               In paragraph 37, the sentence
7
    beginning -- well, let me read it for the record.
               You state in paragraph 37, "From an
8
9
    economic perspective it would be necessary to define
     a relevant market whether the antitrust allegations
10
11
     in this are per se illegal or actually fall under the
12
    Rule of Reason category..."
               First of all, did I read that correctly?
13
14
          Α
               Yes.
15
               And is that a statement that goes beyond
16
     your area of expertise?
17
    A No. I'm saying from an economic
18
    perspective.
19
    Q And in fact, my question to you used the
20
    words "from an economic perspective," didn't it?
21
         Α
               Oh, well -- then I wasn't listening
22 carefully.
0220
                Okay. Well, let's try it again.
1
2
                From an economic perspective, is market
3
     definition essential in a case alleging a "per se"
4
     illegal conspiracy?
          A I'd say it would be necessary for -- it
5
 6
    would be part of what would be required of an
     economist, to add to the proceeding, as to bring what
7
    an economist would have to bear on -- on whatever
8
9
     economics would bring to bear on a conclusion of
10
     whether or not there was a conspiracy or not.
11
                Do you, based upon your work at the FTC,
12 including on conspiracy issues, have a view regarding
13
    whether it is essential to define a relevant market
14
    if one is pursuing a "per se" claim?
15
               I think it's as to what -- as to what the
16
    law should entertain from a economists's expert
17
    testimony, with respect to conspiracy -- the answer
18
    is yes.
19
                I don't see -- except in unusual
20
     circumstances, I don't know why the court would be
     interested in a document -- an economist reciting
22
    documents and that being its analysis.
0221
1
                That's -- a fact finder can determine
 2
    that, or an economist can analyze -- not that the
 3
     documents are relevant -- what the economist can
 4
    bring to the -- to a proceeding is economic analysis,
 5
    which start -- which -- which certainly starts with
     economic definition of a market and -- and economic
 6
 7
    characteristics of the market that suggest whether a
 8
    collusion could be as plausible, could be effective,
9
    is rational, etc., and effects. That's what an
10 economist can bring to the proceeding.
11
                There are several places throughout the
12 report -- throughout this report -- where you wind up
13
     quoting some legal source; for example, what fraud --
```

```
fraud is or things of that nature.
14
15
                And it's -- it's that -- that fact that
   leads me to the question: Do you hold yourself out
16
17
    as an expert on any area of the law involved in this
18
    case?
19
                No.
                Okay. In a Rule of Reason case, is -- is
20
21
     it all always essential to define the relevant
22
    market?
0222
               It is for a plaintiff.
1
2
               Okay. You've worked over the years with
     Jonathan Baker, haven't you?
 3
 4
          A Um-hum.
 5
          Q
                In fact, he succeeded you in the position
 6
    of chief -- chief economist at the FTC; is that
7
    right?
8
         Α
                Yes.
9
               In fact, both -- I'm testing my
10
    recollection here -- did both of you work in the area
     of residual demand analysis once upon a time?
11
12
               That's correct.
13
                Okay. In fact, you and he were among
14
    the -- the first to do work in that area, as I
15 recall?
16
               Correct.
      A
17
               Okay. Are you familiar with the speeches
18 he has made on the res ipsa loquitur approach to
19
    appraising anti-competitive conduct under the Rule of
20
21
     A
               Not recently. But, yeah, I -- I read
     some of them at some time.
22
0223
               Okay. And is it fair to characterize
1
    Dr. Baker's position as being that market definition
2
     is often used as a way to go about predicting whether
 3
     something has an adverse competitive effect, such as
     an increase in price; but if you're able to measure
 5
 6
    directly whether the agreement, in fact, has adverse
 7
    competitive effects, you don't have to go backwards
 8
    and define the relevant market? Is that a fair
9
    characterization of his approach?
          A Yeah. That's sort of what Jonathan's --
10
11
    he could be characterized -- I don't know whether --
12
    I don't know whether he and I would disagree that
13
    residual market demand analysis really has embedded
14
    in it market definition in a way to start.
15
                And -- but it gives you the -- and if --
16 if the endpoint comes out a certain way, then -- then
17
    you conclude that where you started was probably
18
    right.
19
                Well, in focusing upon his speeches and
20
     work, particularly in the area of what he calls the
21
    "res ipsa loquitur" approach, as opposed to his
22
     earlier work, which explicitly dealt with residual
0224
    demand analysis, do you agree with his conclusion
1
 2
     that if an economist, upon sound economic techniques,
 3
     can conclude that an agreement had an
 4
     anti-competitive effect, that it is not necessary to
 5
     go backwards and then define what the relevant market
 6
 7
              Well, not necessary for what?
```

8 One, I think that -- that has that --9 that analysis has embedded in it some very strong conclusions of market definition. 10 11 Second, this isn't done in a vacuum. We 12 don't do this as a hobby. We do it because, in 13 litigation, the courts are interested in this; and the courts have spoken very clearly, including on 14 15 Jonathan's theory, that -- you'd better define a 16 market -- you know, from looking at the fountain pen 17 case or various other cases like that. 18 So I don't think that that -- this was 19 sort of a -- you know, a religious argument. And I think it comes down to -- I've reviewed the residual 20 demand analysis as sort of a very strong way of 21 22 establishing or disproving that a particular set of 0225 1 products or geography is a relevant market. 2 You mentioned, however, the courts have 3 come down on -- the United States Supreme Court, in 4 some cases brought by the FTC, concluded on the Rule 5 of Reason analysis market definition is not always 6 required? 7 Okay. You're getting -- you're getting 8 too much into -- I vaguely -- I vaguely know what 9 you're talking about, I think -- but too vague to 10 give a sensible answer. 11 Fair enough. 12 Now, with respect to where the courts have come down, you refer at various places in your 13 14 report, Scheffman Exhibit No. 1, to "innovation 15 markets"; is that correct? 16 Α Yes. 17 That term -- was that term first coined 18 by the antitrust enforcement agencies in the course 19 of promulgating certain guidelines? 20 I don't know whether "first," but that 21 was where it certainly became popularized. 22 Okay. Are you aware of any cases where a 0226 1 court has concluded that it should analyze the antitrust issue by focusing upon an innovation market 2 rather than a product market? 3 Well, I think a central issue in many 4 5 matters is -- and, particularly, Section 7 sort of 6 thing -- is what -- what would occur in the absence 7 of a merger -- not just in price, but what might come 8 into being, absent -- absent the merger. 9 And that's been a central -- way before 10 the innovation guidelines, that was a central issue 11 of the FTC and the anti -- antitrust division. 12 Now, I'm not asking about whether courts 13 ever look at the effects of a merger or some other 14 conduct on innovation. 15 My question is more specific, or at least 16 I'll try to make it more specific. 17 Are you aware of any cases in which a court set about to define the relevant market and did 18 19 so by defining an innovation market? 20 They didn't use that term. 21 But if -- for example, if you take the 22 catalytic converter case, if I remember right, one of 0227 1 the issues was, the thing you might say was a

catalytic converter market, but it -- given the thing 2 didn't exist yet, you were clearly talking about 3 things might exist in the future. 4 5 That was the concern. 6 But the focus there would be -- would be 7 the actual output of goods in the catalytic converter market. That's what the focus was on, was it not? 8 No. I think the focus was, what it --9 A what the "it" would be. 10 11 Q Okay. I didn't call it -- I think they define 12 Α 13 the market. But it's -- you know, it's an odd -it's an odd shoehorn, because if you define something 14 where you don't -- that doesn't even exist yet, you 15 16 don't know what it is. 17 Q Um-hum. Now, in the catalytic converter 18 case, are you referring back to the automobile joint 19 venture I talked about a moment ago, or a separate 20 litigation? 21 A Some -- one of the catalytic converter --22 I don't know whether that was the only one or there 0228 was one you referred to -- I'm thinking about is a 1 California case. Is it not? 2 3 Q Okay. And are you referring to a 4 decision by a court or to a consent decree? 5 Well, there was a decision -- there was a decision of the court, at least as to standing in the 6 7 case, I remember. Q Okay. Can you recall -- can you refer to 8 9 any court decision that resolved the issue of whether a market should be determined or defined in terms of 10 11 an innovation market rather than a product market? I don't know that a court has ever used 12 A 13 that term. Whether or not they've used the term, can 14 Q 15 you ever -- can you recall any court decision where a court has ever done so; that is, defined a market, in 16 17 effect, being an innovation market, even if it didn't 18 use the phrase "innovation market"? 19 I think there are cases, certainly, in 20 which the concern of the court was that conduct might change the nature of what the things are that are 21 22 produced in the future. 0229 1 And the court may have called it a thing 2 market, like catalytic converter. 3 But from an economic point of view, it has to do with innovation. I wouldn't -- I wouldn't 4 5 use the term -- coin the term "innovation market" --6 what -- what new things will come into being and how might that be affected by the conduct at issue? 7 8 Can you recall any cases wherein a court, 9 in appraising the market power or absence of market 10 power of the companies involved, did so by focusing upon their share of what would be defined by the 11 12 agencies, antitrust agencies, as an innovation 13 market -- as opposed to by looking at shares of the 14 product market? 15 As to what a court has considered? Α 16 Q That's right. 17 No; I you can't remember. A 18 What percent of the -- of worldwide Q

```
cigarette production is accounted for by the
19
20 defendants in this lawsuit?
21
          A
              Today?
22
          Q
               Yeah.
0230
1
               I don't know the number.
               Do you have any idea of the percentage
 3
     that the defendants in this lawsuit make up of the
 4
    total world?
 5
                Yeah. I know -- I know that number. I
    can't remember. And the numbers change significantly
 6
 7
    over time. But -- and it's difficult to keep track,
    because you have -- RJR's international share doesn't
8
     exist anymore. It belongs to Japan Tobacco, and
9
10
    things like that have happened.
11
                So I can't -- I don't -- I don't know the
   number off the top of my had. I know the number, and
12
13 I -- it's in one of my reports somewhere, actually.
14 But -- it could be calculated.
15
               If you think it's in the document in
     front of you -- you know, by all means refer to it.
16
             No. It's not -- it's not in here.
17
               Okay. Do you know if, currently, more
18
19
    than 50 percent -- pick a somewhat arbitrary
20 number -- of world cigarette production is accounted
21 for by the defendants in this litigation?
22
          Α
               No. No, I don't -- I don't know off the
0231
    top of my head.
1
 2
         Q Do you know if more than 30 percent of
 3
    world cigarette production is accounted for by the
    defendants in this litigation?
4
 5
         A Of the world --
 6
          Q
               -- cigarette production.
7
               In units?
          Α
8
               Yes.
          Q
9
          Α
10
                I -- I have looked at those numbers. But
    I can't -- there are lots of -- there are lots of
11
12
    complexities, one of which -- you know, China, Soviet
13 Union -- smoking consumption, where the defendants
    are not substantial players yet. So I -- I don't
14
    know the number off the top of my head.
15
16
              Okay. Do you know -- to in the other
17
    direction -- if more than 70 percent of the world
18
    cigarette production is accounted for by the
19
    defendants in this litigation?
20
         A I don't -- I don't think so. But -- you
21
    know, I mean -- I have -- I have research. I just
22
    can't remember.
0232
1
                Okay. Let's move back in time to, say,
2
    1964, that we've used a lot.
 3
                Can you -- do you know or can you
 4
     estimate -- let me phrase it that way -- the
 5
    percentage of world cigarette production that was
    accounted for by the U.S. tobacco industry?
 6
 7
                And I'm going to include all of BAT when
    I say "U.S. tobacco industry" in this series of
 8
 9
    questions.
10
                Smaller, significantly smaller, probably.
11
    But it's -- I'd have to go back and look at the
12
    numbers on that.
```

```
But we had -- Philip Morris was not a
13
14
     substantial international -- or none of the U.S.
     companies were substantial international players.
15
16
                BAT was the major international company
17
     at that time, and not that big in the U.S.
18
                 So it's smaller than it is today, at
     least for developed countries. I've got a factory
19
     in -- you know, China and Asia and other places.
20
21
           Q Do you know if, in 1964, the defendants
22
     in this case -- and in any other companies that were
0233
     then producing in the United States, to pick up any
1
     small ones that were around \operatorname{\mathsf{--}} accounted for 50
 2
     percent of world cigarette production?
 3
 4
                World cigarette production?
 5
                 Probably not. That's guessing. I've
     looked at the numbers; I just can't remember.
 6
 7
                Okay. And if I removed China and Russia
 8
     from the analysis and asked you about the -- whether
 9
     the defendants in this case and any other U.S.
     cigarette companies accounted for 50 percent or more
10
11
     of the world's cigarette production, putting aside
     production in Russia and China as of 1964, do you
12
13
     know?
14
                 I do; but I can't remember.
15
                 But it's probably -- it's probably known.
16
     It's probable known, because you had major consuming
     countries where BATCo -- where none of the U.S.
17
     companies were not significant -- you know, Spain and
18
19
     Germany and France, Japan.
20
               In recent years, what percentage of world
21
     tobacco research and development has been performed
22
     by U.S. cigarette companies? And again, I'm
0234
     including BAT in this.
1
 2
           Α
                For the world?
 3
                      MR. STREETER: Objection.
 4
                 Yes.
 5
           Α
                 There aren't -- there aren't precise
 6
     numbers on that. We do know that there's some very
 7
     substantial players, like Japan Tobacco, who -- who
     probably is on an equal footing, as best we could
 8
     tell from the assessments of the U.S. companies, in
 9
10
     terms of R&D efforts and their other -- the other --
11
     their other companies in the world.
12
                Given all that, can you -- do you have a
           Q
13
    basis for estimating the percentage of world
14
     tobacco-related research and development that is
15
     performed by, in recent -- that has been performed in
     recent years by the defendants in this case?
16
17
                I don't know whether -- if there are such
18
     data, I have them. But I'm not sure there are -- I'm
19
     not sure there are data like that available.
20
                So you don't know?
21
           Α
                 I -- I can't remember it today.
22
                 Is it your opinion that consumers weigh
0235
 1
     statements by third parties more importantly than
     they do by -- statements of the makers of a product,
 2
 3
     when it comes to statements about the quality -- when
 4
     we're talking about statements about the quality or
 5
     safety of the product?
 6
                 Yes.
           Α
```

7 Is that true even if the third party is 8 making a statement -- I'm sorry. 9 Is that true even if the maker of the 10 product is making a statement that its product is 11 unsafe, as opposed to being safe? 12 Well, we don't have -- we'd have for look at that on a case-by-case basis, because there aren't 13 very many -- there are very few examples like that. 14 Q And given -- I'm sorry. I didn't mean 15 16 to -- have you finished? A And so, it really -- it really depends on 17 18 the context of the situation. In other words, as you sit here today, 19 20 you can't say that consumers would necessarily give 21 less weight to an admission by a company that its 22 product was harmful in some way than it would to 0236 statements by independent third party that the 1 2 product was harmful? 3 MS. McDEVITT: Objection. No. I didn't say -- it really would 4 5 depend on the context. People do not -- it's a very tricky 6 7 issue. And the problem is that there's not -- there 8 aren't a lot of case examples of that. 9 There are certainly -- there are some 10 good examples that approximate that in the cigarette industry; but you really have to know the context, 11 because the -- the typical admission is -- that you 12 13 can think of in examples -- are -- are still -- you 14 know, depend on the form of the admission. They're 15 often still self-interested admissions. 16 I understand your point that it depends upon the context. And all I was asking you was 17 whether, given that it depends upon the context, you 18 19 are capable of making a categorical statement that 20 when a party makes an admission regarding bad effects 21 of its product, that necessarily is given less credence than if a third party made the statement? 22 0237 1 Depends on the situation. 2 Okay. So in other words, you can't make 3 a general statement that covers all situations? 4 A Correct. 5 Okay. Let's take an example. Let's 6 assume some organization, like one of Ralph Nader's 7 organizations, says that a particular car is likely 8 to have its fuel tank burst into fire. Okay? 9 That's a third party, as you're using the 10 term, the Ralph Nader organization; right? 11 (Witness nods head.) A 12 You have to answer audibly. Ο 13 Α Yes. 14 And let's say that the particular 15 company -- call it "General Motors" -- whose car has been so impugned, says, "No; that's misleading. 16 It's -- it's faulty data led to that conclusion. Our 17 18 car is not unsafe. It won't burst into fire." 19 In that scenario, is it your point that 20 the consumers will give more credence to Ralph Nader 21 as the third party than to General Motors, the 22 company that's -- who's self-interested in the car? 0238

Well, it's not a blanket. It depends on 1 2 the credibility of Ralph Nader, or it depends -- it 3 depends on the credibility of whoever -- it's not 4 just that it's a third party. 5 It depends on -- you know, my statement 6 in the report is that credible third parties are 7 always the most important sources for -- the fact that some third party, some crazy person -- I'm not 8 9 talking about Ralph Nader, but somebody else -- makes 10 some allegation doesn't mean they affect anyone's 11 opinion. 12 And I wasn't -- I guess I didn't mean to convey that people would necessarily think Ralph 13 14 Nader was a -- was a crazy person or anything. 15 Let's say that Ralph Nader makes this statement based upon some studies he got from MIT and 16 CalTech and the University of Illinois and New York 17 18 University. 19 And he looks at the data. And he and 20 some others conclude that, yeah, there's a real likelihood -- in fact, it's probable -- that this gas 21 tank's going to burst into flame in inopportune 22 0239 1 situations. 2 Let's take that as our hypothetical. 3 Okay? 4 Α Okay. In that situation, is the consumer more 5 likely to credit Ralph -- the claim by the third 6 7 party -- or third parties, if you want to think of 8 each of the universities as a party -- or are they more likely to credit the claim by the automobile 9 10 company that, in fact, there is no safety hazard? MR. TURKEN: Objection. 11 12 It depends completely on the context. 13 So sometimes they would -- if it depends 14 upon the context, then in some cases they would give more weight to the automobile company than to the 15 16 third party, by definition; isn't that right? 17 I think it's --18 MR. STREETER: Objection. 19 -- more whether they -- whether they --20 you know, what they pay attention to. 21 It may not be -- it's more complicated. 22 It may not have nothing to do with the company --0240 1 says at all. It may have to do with whether the people 3 are interested in the information. 4 We know from auto recalls and lots of 5 things that for most of those things people weren't 6 very interested in no matter who says -- whether the 7 company says it, whether NITSA says it, whether Ralph 8 Nader says it. 9 Okay. Let's limit ourselves to people 10 who are interested in the issue and want to make a 11 reasonable judgment about the danger or lack of 12 danger involved. 13 For those people, are there cases where 14 the people would believe the automobile company more 15 than the third party? 16 That's -- that's just too vague. 17 I mean, it's really too vague a -- you

```
can't take it in the absence of a context and what is
18
19
    actually -- you know, what is actually, quote, the
   facts or truth that there is such a thing and -- and
20
21
     what -- and what else people are exposed to.
22
               Well, in that case, it follows, doesn't
0241
     it, that it is not always true that they will believe
1
 2
     the third party more than the company whose product
     has been challenged, if it does depend upon the
 3
 4
     circumstances?
 5
          A Correct.
               Okay. In that example, what if the
 6
    automobile company had come out and said, "By God,
 7
    Ralph Nader's right. Our car does burst into flames.
 8
     Sorry. We misdesigned it" -- would that sort of
 9
10
     statement be credible to a large number of people who
11
    are interested in the issue?
                     MR. STREETER: Objection.
12
13
                It -- it would depend on the -- it would
14
     depend on the situation, so that you're -- you're --
15
     I don't understand.
                There -- in -- in -- in history, there
16
     are extremely few, if any, circumstances where anyone
17
18
    has ever done that, even where they've -- not that
19
    they haven't indicated in some way there might be
20
     some problem with their product.
21
                But it's usually communicated in a way
22
    that's a little bit, from their point of view, more
0242
1
    even-handed than that.
2
               And what I'm asking --
          Q
                It depends on how it's communicated.
 3
 4
               I'm sorry. I do -- let me state for the
    record, sometimes -- we are sitting across -- and
 5
    this is our fault -- a very wide table. And I don't
 6
 7
     have as good a visual cue.
 8
                When the witness is continuing to talk, I
9
    literally can't see your mouth moving at times; and I
     do apologize whenever I've interrupted you --
10
11
    probably a half-dozen times.
12
                I also shut up quickly when I see you're
13
    continuing. But let me, for the record, make -- make
14
    that clear.
15
                I don't recall if you recall where you
16
    were; but if you want to hear the -- hear your answer
17
    back or continue, please go ahead?
18
               I'm saying, the problem with all these
19
    questions -- from this morning and all this -- you're
20
    taking a hypothetical which is -- almost impossible
21
     to find in human history -- that a -- that a company
22
     would just nakedly say, "Our product's terrible.
0243
    Here is -- here's the truth. No -- no rhetoric in
1
 2
     connection with it" -- just because that sort of
 3
     situation -- sort of, that might be the thing just
 4
    before you pull the plug.
                I mean, I don't -- we don't -- there
 5
 6
     aren't -- you would never -- you'd never expect to
 7
     see that -- to happen in any industry. So...
 8
               And given the absence of such data, you
 9
   really don't have much to look at to predict what the
10
    effects of such a statement would be; isn't that
11
    right?
```

```
No. No. But it depends on the context.
12
13
                 You know, I'm saying: In the cigarette
     industry, we have a lot of evidence -- because we
14
15
     have a lot of history. We have a lot of history. We
     don't have exactly your hypothetical; but we have a
16
17
     lot of things that bear exactly on that, beginning in
     the U.S. with the Frank statement, which on its face
18
19
     was an admission of sort -- which really was
20
     remarkable -- admission, saying, "There's people out
21
     there that are really credible, scientific people.
22
     And this say there's this problem. We are not -- we
0244
     don't think they're right, but we're looking into
1
 2
 3
                 That was an amazing admission in 1954.
 4
     And -- and if we look at -- look at all the other
     evidence that I talked about this morning, about what
 5
     the effect of various sorts of admissions might be --
 6
 7
     hypothetical admissions might be -- I think it's
 8
     quite clear and that the answer is in the cigarette
     industry, given the long history and the context and
9
10
     whatever else -- what -- all the things people were
11
     exposed to.
12
                      MR. ANGLAND: We need to change the
13
     tape?
14
                      VIDEOGRAPHER: Off the record at
15
     2:43. End of Tape No. 2.
                      (A recess was taken.)
16
                      VIDEOGRAPHER: Back on the record at
17
18
     2:46. Beginning of Tape No. 3.
19
                      BY MR. ANGLAND:
20
                 Dr. Scheffman, you indicate that various
21
     studies have shown that, historically, U.S. consumer
     awareness of the risks of smoking have been
22
0245
     relatively high; is that right?
1
 2
                Yes.
           A
 3
                Let's assume for a moment that a survey
 4
     of smokers indicated that they believed that 2
 5
     percent of smokers would wind up dying from a
     particular, disease -- but, in fact, the real number
 6
 7
     is 4 percent.
                 Would you view that as a fairly accurate
 8
 9
     appraisal on their part, of the risks of smoking?
                     MR. STREETER: Objection.
10
11
                 No. I think the problem -- I'm familiar
12
     with these sort of surveys. And there are surveys.
13
     The surveys pretty clearly indicate that people
14
     probable overestimate the health risks of smoking, in
15
     general.
16
                Now, if you try and unbundle -- you know,
17
     and you ask: But do you know how -- what's your
18
     likelihood of lung cancer and other sorts of
19
     things -- then you get a mix.
20
                Then you get a mixture -- not
21
     surprisingly, because it's a -- it's complex issues.
22
     And people are mostly concerned about whether they're
0246
     going to -- life is going to be short, and not
 1
 2
     whether it's going to be due to emphysema or lung
     cancer or heart disease.
 3
                So we always find, when we unbundle those
 5
     things for consumers, that we get -- we get
```

```
evidence -- we get impressions which are, quote, less
   6
   7
             accurate, maybe, than they're -- what the real
             threshold issue is.
  8
  9
                           Q What metric, what quantitative measure
10
             would you use to judge whether consumers accurately
             perceive the risks of smoking?
11
12
                                            What would you compare to what?
13
                                           Well, I've looked -- I've cited the
14
             literature here. And I've cited, in particular,
             Professor Viscusi's research -- various ways measures
15
16
             what people's opinions are, and contrast that with
             what the -- what the objective evidence would
17
             indicate what the real -- what the real risks are.
18
19
                                       And I'm asking what measure, whether it's
20
             one that Professor Viscusi used or one that you think
21
             is appropriate -- what measure, what would you
22
             actually compare, in terms of what people perceive
0247
 1
             and what really existed, to find out whether people
  2.
             correctly estimated, overestimated, or underestimated
             the risks of smoking?
  3
   4
                            A
                                     Perceived risk versus actual risk.
  5
                                          How would you measure risk in each case?
   6
                            Α
                                         Well, I don't remember the -- I -- I
  7
            don't remember the details of the -- today --
  8
            about -- for example, what some of this literature
            does, like Professor Viscusi and the other literature
  9
            I cite. So I just -- I can't from memory remember.
10
                                            I've reviewed those -- I've reviewed the
11
            research, and -- you know, because I cite it -- and I
12
13
            believe that it was appropriate methodology. And the
            results didn't -- the results were -- were a proper
14
15
            basis of making a conclusion.
16
                                        What in your opinion would be a proper
           way of measuring that risk, whether or not you recall
17
             exactly how Professor Viscusi did it?
18
19
                            A That's a -- that's a complicated issue.
20
             I really -- I'd really have to think about it. I
21
             can't do it from memory.
22
                                         Is it an issue you've ever analyzed?
                           Q
0248
 1
                            Α
                                         Yes.
  2
                                           In the context of smoking?
                            Q
  3
                            Α
  4
                           0
                                         But as you sit here today, you can't
  5
            recall what you concluded?
  6
                                        Well, I don't -- I'm sorry. I'm not
               A
  7
            being clear.
 8
                                            I haven't done such a study. I've looked
 9
             at the published literature, and I've -- I've looked
10
             at the methodology and the data used in those cases,
11
             and thought about, does that seem reasonable to me as % \left( 1\right) =\left( 1\right) +\left( 1\right) =\left( 1\right) =\left( 1\right) +\left( 1\right) =\left( 1
12
             a procedure. And I concluded that it was.
13
                                          But I can't remember today.
14
                                          Do some of the studies -- first of all,
15
             are you familiar with the term "relative risk" --
16
                           Α
                                  Yes.
17
                                           -- as it's applied in the smoking/health
                           0
18
             context?
19
                A
                                         I don't -- you know, I don't -- I
20
             couldn't do much of a memory test on it today.
21
                                          You know, I'm familiar with that term.
22
                                           Do you recall that it relates basically
                            Q
```

```
0249
     to the risk, however measured, that a smoker would
 1
 2
     have from a particular disease, divided by the risk
     that a nonsmoker would have to a particular disease?
                      MR. STREETER: Objection.
 4
 5
                 Well, that's -- you're getting -- I don't
     remember with enough specificity to remember that.
 6
 7
                 I remember -- I remember the term. I
8
     just don't remember today.
9
                All right. Do you think it is reasonable
10
     to compare -- when judging whether people accurately
     perceive the risk of smoking, do you think it's
11
     reasonable to use relative risk as a measure of risk?
12
                I just -- you're asking me things that I
13
14
     just can't from memory adequately answer today.
15
                Well, rather than doing it from memory,
16
     can you figure it out as we sit here?
17
                No, probably not, not in the time we
18
19
                What would you need to be able to figure
20
     this out?
                Okay. I'd -- I -- I told you, I -- I
21
     have not done this research.
22
0250
1
                 I relied on published research that I
 2
     have reviewed on the subject, and I'm familiar with.
 3
     I've certainly read it and cited it, but I can't -- I
     can't do a memory test on that today.
 4
 5
                I'm not asking you how the numbers came
 6
     out. I'm just asking you whether you think it is
 7
     reasonable for an expert trying to figure out whether
     people correctly perceive the risks of smoking -- or,
 8
9
     more accurately, to figure out how close to correctly
     they perceive the risks of smoking -- whether it is
10
     appropriate to use as a risk, measure of risk, the
11
12
     relative risk; that is, the ratio of the risk to the
13
     smoker to the risk to the nonsmoker.
14
                      MR. STREETER: Objection.
15
                 I couldn't answer that today.
16
                And if you were to read as -- an article
17
     by somebody today that used that particular method,
     the relative risk method, to compare the real versus
18
     the perceived risk of smoking -- when you got to that
19
20
     point in the article, would you just say, "Gee, I
21
     have no idea whether this is reasonable or not," and
22
     skip over it, or what would you do?
0251
1
                      MR. STREETER: Objection.
2
                For what purpose?
 3
                To -- to appraise whether this was a
 4
     meaningful, reasonable study.
 5
                 I would -- I would go back -- I'd have to
           Α
 6
     go back, and refresh my recollection of the knowledge
 7
     of the literature and what the -- what I think the
 8
     appropriate techniques are, and come to a conclusion.
 9
                 I just can't do that today.
10
                How much time did you spend reading
11
     studies by Professor Viscusi and others that dealt
12
     with this issue, the issue being -- now, the general
13
     issue of perceived versus actual risk from the point
14
     of view of smokers?
15
                I don't -- I don't know. I think I
16
     spent -- you know, I've read the Viscusi book and
```

```
articles. I've read a number of other articles that
17
18 bear on smokers' perceptions of risks.
         Q Have you spent ten hours doing this?
19
20
         A
              Oh, easily, yeah.
               50 hours?
21
          Q
2.2
          A
               I don't know.
0252
1
              Okay. And I take it, then, just to be
2
     clear, that given that reading that you've done and
    the thinking you've done, as you sit here today you
3
    have know opinion, one way or the other, on whether
4
    using the relative risk to do that sort of comparison
 5
    between real and perceived risk would be an
 6
    appropriate thing to do?
 7
 8
                    MR. STREETER: Objection.
                No. I'd say I'm -- I'm -- I'm sure I
9
10 have an opinion. But I can't tell you what it is
11
    because I can't remember. I haven't offered an
12
    opinion on that.
13
               Well, but my question was as you sit here
14
    today.
              No. I can't -- I don't -- I can't offer
15
16
    you an opinion today.
17
         Q Did you have an opinion when you wrote
18 this paper, as to whether -- whether relative risk
19 would be an appropriate measure of risk?
20
               I can't tell you more than -- I -- I
    cited the literature that -- that I thought
21
    was useful in shedding light on the risks smokers
22
0253
1 perceive.
               When you were reading the Viscusi
2
         Q
    materials and the other materials dealing with this
    issue, do you recall pausing to ask yourself whether
 4
    risk was being measured in the proper way?
5
               Of course, yeah.
 6
 7
                Okay. But you just can't recall anything
8
    that -- about that thought process you went through?
9
              Well, that's -- well, that's -- I mean,
10
    that's not a fair question at all.
11
                You're asking me about a specific term,
12
    and I can't remember which articles used that sort of
    measure.
13
14
                I don't know where -- I've read a lot of
15
    things. There's FTC reports on consumer perceptions.
16
    There's a lot of -- there's a lot of articles by
17
    medical people about -- that try to look at
18
    perceptions. There's articles by Viscusi and others
    that I've cited.
19
20
                I've read a lot of that literature.
21
                And having read it, as you sit here
22
    today, though, you can't give me -- tell me yes or
0254
1
    no, as to any of these measures of risk, whether they
 2
     would be an appropriate measure of risk to use in
    that type of study; is that correct?
 3
               I'd have to -- I'd have to refresh my
 4
          Α
 5
    recollection.
 6
               Which I assume means that it's correct
 7
    that, as you sit here today, you can't do it.
 8
          A Correct.
 9
               Okay. Now, this morning you mentioned
10
    having looked at what happened in the aftermath of
```

```
the release of certain Brown & Williamson documents
11
12
    in 1995. Do you recall that?
13
          Α
               Yes.
14
          Q
                Okay. And that if I recall correctly,
    your point was that you looked at smoking prevalence
15
16
    in the aftermath of the release of Brown & Williamson
    documents, and you didn't see that that release had
17
18
     any substantial effect on smoking prevalence; is that
19
    right?
20
                Prevalence or initiation or quit rates,
     from what we -- the best we can tell from the data.
21
22
               Okay. Now, in doing that analysis did
0255
    you do any empirical work?
1
 2
                And by "empirical," I mean actually, for
3
     example, do aggression analysis or something, as
     opposed to simply looking at empirical data, such as
4
5
     prevalence rates.
 6
                I don't recall, for sure.
7
                It wouldn't have been much help, because
     there's essentially one data series. I don't know.
8
                I think, as best I can recall today, it
9
    was just looking at the data series; and it showed
10
11
    that there was no -- there was no significant
12
     downward impact on prevalence or initiation, or an
13
    upward impact on quit rates.
14
               You're familiar with the term event
          Q
15 study, aren't you?
16
         Α
               Yes.
                And -- yeah -- for the record, why don't
17
          Q
18
    you describe what an event study is.
         A Well, an event study is used for stock
19
20
    market data, to analyze whether there -- whether
    there seemed to be a measurable effect on the stock
21
    price of a company or an industry or a group of
22
0256
1
    companies.
2
                Isn't the same type of mathematical
          Q
    approach used, other than in the context of stock
 3
 4
    market price data?
 5
          A Not usually, because in the stock market
    the -- the theory of the stock market is that --
 6
 7
    finance theory indicates that certain things, in
 8
    theory, would be instantaneously virtually
    incorporated into the stock price. And so you get a
9
10
    precise effect.
11
                Most actual things in -- that happen in
12 real markets take time, you know, rather than
13
    instantaneous effect.
14
                And in the case of tobacco-related
15
     issues, at least for existing smokers the fact that
    there is an addiction or habituation caused by
16
17
    tobacco can cause the effects to be even more lagged
18
    than they would be in other circumstances; is that
19
    right?
20
                     MR. STREETER: Objection.
21
                Well, we're looking at initiation and
22
    quit rates and other sorts of things.
0257
1
                No. You -- well, I don't -- I don't -- I
 2
     was never expecting to see an effect the day after
 3
     the release of the documents.
 4
                What's really striking is that no one
```

```
5
     claims -- in fact, the health-care community claims
     the opposite -- that things are, in fact, going the
 6
 7
     other direction. That has nothing -- doesn't have
 8
     anything to do with the release of the documents.
                 But there's no sign at all in any --
 9
10
     when -- anyone that looks at the numbers that -- and
     the trends, from a health -- from the point of view
11
12
     of public policy have been improved in any dimension.
13
                 When you looked at those prevalence data
           Q
14
     to see if there was an impact of the Brown &
15
     Williamson disclosure, did you look by -- just at
     aggregate data, or did you break it down by age and
16
     gender?
17
                 Well, we've looked at the -- the
18
19
     available data. Certainly looked at initiation.
20
                 What we know by initiation -- where the
    trends are -- in the U.S. and lots of other places in
21
22
     recent years have been going the other direction.
0258
1
                 So I remember looking at that, and
     looking at -- you know, I mean, initiation by
 2
     smoking -- smoking rates, as they're measured in
 3
     various ways, by underage -- by children.
 4
 5
           Q
                Which sources of data were you looking at
 6
     to ascertain children's initiation rates?
 7
          A Well, I can't -- the -- the -- one of
     the -- one of the public health organizations in the
 8
     U.S. I can't -- let me think.
 9
                 I know which one, but I can't remember
10
11
    off the top of my head -- collects -- you know,
12
     reports data on that. And other countries have
     similar agencies that try to estimate that.
13
14
           Q Um-hum. Did you consider doing any
     econometric study to test whether the release of the
15
     Brown & Williamson documents in 1995 had an effect on
16
     smoking prevalence?
17
18
                I can't -- I -- I can't remember.
19
                 Nothing other than something very
20
     simplistically -- simplistically -- but just
21
     statistical analysis, showing what you could see in
22
     the data.
0259
                 There wasn't any wiggle, since 1985, that
1
 2
     I find in the data.
 3
                Well, just looking at the data itself --
 4
     or themselves, I should say -- wouldn't shed light on
 5
     whether there were confounding factors that might be
     masking, in effect, the disclosure of the Brown &
 6
 7
     Williamson documents, would it?
 8
                 I thought about confounding effects; but
 9
     it's hard to -- it's hard to see what they would be
10
     in this particular case.
11
                 There's not -- there wasn't -- there
12
     clearly wasn't a reduction in tax rates. And in
13
     fact, prices have gone up.
14
                Lots of -- lots of things, if anything,
     have gone the other way. And the adverse publicity
15
16
     has -- increased.
17
                 You know, the point is: This isn't --
18
     plaintiffs claim there would be some really dramatic
     effects from this sort of activity.
19
20
           Q
               Correct.
21
           Α
                Not that it would be -- have some
```

statistically significant but, you know, immeasurably 22 0260 1 small effect -- that it would have a dramatic effect. 2 That's the whole plaintiffs' theory here. And there's just not -- looking at that and a number 3 of other examples, there is just not any support in 4 5 the data for that. Um-hum. And when you looked at the --6 7 the data to try to figure out whether there was a change, what data points did you compare? 8 9 And I'm -- when I say "what data points," I'm -- I'm talking about what year or what time 10 period did you compare to what time period? 11 Well, I'll say it again: I did lots 12 13 of -- are you talking about just Brown & Williamson? 14 Q Yes. 15 Α So if we look at the period since the 16 release of the documents, we have the release of 17 documents and then a number of other things have 18 occurred. 19 A lot more publicity about the documents, 20 the AG's case, the MSA, Liggett -- Liggett's settling out, making certain admissions, the other 21 companies -- the other companies changing their 22 0261 1 position on health -- a lot of dramatic things have 2 happened. 3 From the plaintiffs' perspective, they're really all the dramatic things that have happened 4 5 that the plaintiffs say was -- would have been really 6 important. 7 And if we -- that's what the whole 8 climate has been since the release of the documents. And no one in the public health community 9 is finding any evidence that things are -- from their 10 point of view, are improving, in terms of smoking 11 12 incidence. 13 So there's -- there's no decrease in the initiation rate of smoking since the release of the 14 15 Brown & Williamson documents; is that correct? There's no measurable -- the only thing 16 17 where we begin to see some measurable effect is, the substantial price increases that arose in connection 18 19 with the MSA are clearly having a dramatic effect on 20 per capita consumption. 2.1 We don't know yet whether that is having 22 a significant effect on prevalence. It's not clear 0262 1 that it's actually having an effect initiation rate. So we think there are trends that children's 3 smoking's actually going up. 4 0 Um-hum. 5 So -- there has been a dramatic effect on Α 6 per capita consumption because of the price. 7 Okay. Companies compete -- and I'm not 8 talking about tobacco industry in particular here, just in general -- companies can compete on grounds 9 10 other than price; is that correct? 11 Α Yes. 12 Product quality would be one --Q 13 dimension; is that correct? 14 А 15 Q And although you might include it in

```
product quality -- different attributes of otherwise
16
17
             competitive products, differentiation of products, is
              another ground on which they can compete?
18
19
20
                                                Okay. Is it possible for an industry to
21
              be competitive with respect to one dimension of
22
              competition, but to be uncompetitive or
0263
  1
             non-competitive with respect to another dimension of
  2
              competition?
   3
                                                Well, yeah, "uncompetitive" is a --
             that's kind of a loaded word -- there's certainly, in
   4
             most industries -- we hope we teach in business
   5
              school -- is that, you know, in most industries
   6
   7
              there's one -- there's a particular emphasis on one
              form of competition. It might be price. It might be
   8
             new product development. It might be advertising.
  9
10
                                                So in that sense, in most industry
11
              situations, some of the competitive -- some of the
12
             particular competitive are more important than
13
              others.
                                                Well, in theory, isn't it possible for an
14
              industry to agree that they will not compete on % \left\{ 1\right\} =\left\{ 1\right\} =\left\{
15
16
              price -- it may be illegal -- but they would agree to
17
              not compete on price, but remain free to compete in
18
              advertising or differentiating products in other
19
              ways?
20
                               Α
                                                Yes.
21
                                                Wouldn't that be possible?
22
                               Α
0264
  1
                                                So you could have an industry that was
  2
              competitive with respect to one dimension of
  3
              competition, but non-competitive with respect to
              another dimension of competition?
   4
                                               -- particularly, in an antitrust -- you
   5
   6
             have a price-fixing cartel with no -- no agreements
  7
              on any dimension -- other dimensions -- yeah, sure.
  8
                                              Okay. And it could work the other way
                               Q
   9
              around, where you could have competition with respect
             to price, but agree -- but a restriction of
10
              competition and uncompetitive conduct with respect to
11
12
              certain other industry characteristics.
13
                                                That's possible too, isn't it?
14
                                                That's possible. But depending on the
15
              situation, it begins to test the plausibility --
16
             because nothing is more worse for a -- for an
17
              industry and company than to have, competitive on
18
              price.
19
                                                 So if you were going to go to the bother
20
              to conspire on something, that's where you should
21
              always begin.
22
                                                Um-hum. I suppose an industry could
0265
  1
              conclude that there was a greater risk of antitrust
              sanctions or being caught in one type of conspiracy
   2
              than another. That's a possibility, too, isn't it?
   3
   4
                                              Possible.
   5
                                               Okay. You refer to a -- a treatise by
   6
              Fiske & Hartley in your report. Do you view that as
   7
              an authoritative source in the area of advertising?
   8
                                             Can you point me to the paragraph?
   9
                               Q
                                                On page 56 -- where, to be exact, you say
```

```
that the Kotler text -- text cites a treatise by
10
11
     Fiske & Hartley as identifying certain factors that
    influence the effectiveness of advertising.
12
13
               And then you either list or quote them --
     I'm not sure which -- over the next page.
14
15
         A I think that these -- these general
16
    conclusions here are basically supporting by --
17
    supported by marketing professionals, yeah.
18
          Q Okay. And in particular, then, do you
19
    view the Fiske & Hartley text -- book, I should
    say -- as an authoritative source in the area of
20
21
    advertising?
               Well, "authoritative" is a little -- I --
2.2
          A
0266
1
    I -- I cite them for this because I think it was a
2
     citation from the literature that I think is widely
     shared by marketing professionals.
3
                That's all -- I don't remember -- I
4
5
    can't -- I can't speak more broadly about Fiske &
6
    Hartley. I mean, it's a cited -- it's a -- I
7
    don't -- you went before, is it bogus? Is it -- I
    forget -- this before.
8
9
                It is a book cited by the leading
10
    marketing text. I've cited it. So it's certainly --
11
    it's a -- but, yeah, is it a professional -- is it a
    professionally done piece of work? Yes.
13
               It's something you feel comfortable
14 citing?
               For this purpose, yeah.
15
16
               Okay. Are there purposes for which you
17 won't feel comfortable citing it, that you know of?
    A Well, I -- as I said, we -- we -- there
18
19
    might -- there may be something in the -- in the --
   in the book that I would disagree with that I think
20
    didn't -- it didn't comport with what -- what we know
21
22
    in marketing science about some issue.
0267
1
               Okay. Now, you state in your report that
    the purpose of biological research on cigarettes is
2
3
    to test the product. Do you recall that?
4
          A Yes.
 5
               How did you find that out?
               Through doing a lot of research on -- on
 6
7
    what -- in what the testing was for, what it was used
    for. I cite the surgeon general's report.
8
9
          Q And when you talk about testing the
10
    product, are you simply referring to the final
11
    version of a product or are you talking about, for
12
     example, prototypes as well?
             Prototypes as well.
13
          Α
14
               Okay. On page 75 of your report,
15
    paragraph 200, you say that the tobacco companies
16
    have engaged in "very substantial research."
17
                Do you see that?
18
19
                How did you make the judgment that the
20
     quantity of research they engaged in was very
21
     substantial?
22
               Well, I -- I tried as best I could to
0268
1 document it.
                In one of the cases, I had a very
 3
     extensive bibliography that cited public source and
```

company documents about all the sorts of research 4 5 they were involved in. 6 And we have the interrogatories provided 7 by the companies in connection with various litigation, and also what I know about -- what the 8 9 product -- what the outcome has been of the research. I understand that you gather together 10 11 information from various sources to indicate what 12 type of research and how much research had been done. 13 And what -- my question really is: After 14 getting that information, what led you to conclude 15 that it would be fair to characterize it as "very substantial"? 16 Because I've analyzed the R&D activities 17 of lots of companies. There's -- there's -- there 18 19 has been, for a long time, a lot going on. And -and -- and I've documented as best I can, then --20 21 could do -- all the things that were going on. 22 But as I've -- and I've said in this 0269 report and testified elsewhere -- it is difficult to 1 find a consumable product that has so dramatically 2 changed in the last four years as the cigarette. 3 4 Q If the tobacco companies had done only 5 half the research, from 1954 to the present, that 6 they actually did -- that is, if they had done only half the research -- would you still have concluded 7 that that was very substantial research? 8 A I didn't do it -- your experts looked to the amount of dollars spent. And for lots of 9 10 11 reasons, that's a very unsatisfactory way of looking at R&D. 12 13 So it's much more satisfactory to actually look at -- actually break down -- look at 14 the activities that were doing on. 15 And I documented that the companies were 16 17 doing research about anything you could think of at 18 all times. And most importantly, in terms of the outcome -- as I said, that the -- the modern 19 20 cigarette is -- of major products, is the most 21 fundamentally changed product over the last four 22 years. 0270 1 If the tobacco companies had done the 2 same types of research that they actually did, but in 3 each type of research had allocated only half the money and effort that they actually did from 1954 to 4 5 the present, would you still conclude that they had 6 done "very substantial research? 7 Certainly could have. Certainly could 8 have. 9 I don't want -- you know, if -- if -- if 10 the outcome was the same, if we'd still have the 11 dramatic -- very dramatic change in the product, and 12 we'd see Premier and Accord and Eclipse and those 13 other things -- like I said, all the other things that were developed in the industry -- and they did 14 15 it with the same amount of money, that -- that's the 16 whole point. 17 Most of R&D money, like advertising, is wasted. That's why, looking at the amount of money, 18 19 that didn't tell you very much. You want to look at 20 what -- what you wasted in the sense that it -- it's

```
blind alleys. It doesn't -- it -- it doesn't pay
21
     off. Maybe it doesn't produce anything.
2.2
0271
1
                Do you have --
2
           Α
                So you really have to look at --
3
                 I'm sorry.
                -- the details of what's being done
 4
           Α
 5
     and -- and, more importantly, what comes out of the
 6
     process.
 7
                Do you have a view regarding whether less
 8
     would have come out of the process -- there would
     have been fewer improvements -- if in each area the
 9
10
     tobacco companies had spent only half of what they
     did spend in -- on research and development?
11
12
                My question is whether you have a view.
13
                      MR. TURKEN: Objection.
14
                 I'm telling you: It's not -- you
15
     can't -- no expert on R&D should be able to answer
     that question without the context.
16
17
                 I guarantee you, in retrospect -- you
18
     could find a substantial percentage of the money, in
19
     retrospect, would have been better off not being
     spent, that it was -- it turned out it was wasted --
20
21
     you know, it didn't turn out for anything.
22
                 So by that -- you need to know the --
0272
     what is it? What specific things -- let's look at
1
     what they did: Filters, expanded and reconstituted
 2
 3
     tobacco.
 4
                 And Premier -- if they did all those
 5
    things, the things that -- that fundamentally change
     the nature of the cigarette, and -- and you could
 6
 7
     separate all -- out all the other money they spent --
     it wouldn't have made much difference.
 8
                You'd have -- you have to look at what
9
     they spent on it, you know, what -- what the outcome
10
11
     would have been.
                 So if understand correctly, you're saying
12
    that you can't tell whether, the fact that they spent
13
14
     what they did rather than -- you couldn't have told
15
     at the outset whether spending what they did, as
     opposed to half as much, would wind up creating more
16
17
     innovations, because at the outset you wouldn't have
18
    known which of the efforts would lead to something
19
     and which wouldn't?
20
                You can't say in a specific case --
21
     economist is saying that there's some -- you know.
22
     And as a -- as a general macro matter, the more R&D
0273
     expenditures you have, probably the more innovation
1
 2
     comes out of the pipe, in a macro -- in a sort of
 3
     macro way.
 4
                 But if you look at a particular company
 5
     or industry situation, you really would have to get
 6
     down into the specifics.
 7
                Is it possible that spending the amount
 8
     the tobacco companies did on R&D, rather than half
 9
     that amount, led to more or faster or better
10
     innovations?
11
               Whether -- which, now? Whether -- if
          A
     they were to spend half?
12
13
                Yeah. Didn't -- is it possible that, by
14
     spending the amount they did rather than the much
```

lower amount on research and development -- is it 15 possible that, by spending the amount they did, they 16 17 produced more innovations? 18 Yes. Α MR. TURKEN: Objection. 19 20 And would it have been possible that, if they had spent twice as much as they did, they would 21 22 have produced yet more innovations? 0274 1 Α Well --2 MR. TURKEN: Objection. 3 -- that is -- that is an issue that I specifically address. Okay. 4 And that is: The companies, however much 5 6 they spend, which is really -- really a red herring 7 from an R/D point of view -- have led -- these defendants have led the world in the amount of 8 9 innovation, in terms of what has come out of it. 10 And they've, in every way -- as best we 11 can tell from the science and what we all know about the science -- is, they pushed the envelope as far as 12 13 we know can go. And the problem is: We know -- going 14 15 back, by the time of the tobacco working group, if 16 not earlier -- that, other than producing a cigarette 17 that doesn't burn tobacco, the approach was to try 18 and produce products that resulted in more -- greater amount of general and selective removal of suspected 19 20 constituents. 2.1 And that's what the companies exactly 22 did. And then they finally came up with technology, 0275 1 actually, that produced cigarettes that didn't 2 actually burn tobacco. So given that, is it your testimony that 3 if the tobacco companies, in the 1950's and '60s, had 4 5 spent twice as much on research and development that they actually did, it wouldn't have done anything to 6 7 speed up any innovations? 8 MR. STREETER: Objection. 9 I don't think any -- any expert could credibly make a statement as to what would have 10 happened "but for" the situation. 11 12 I think it would be -- they would be 13 speculating. 14 So you don't have a view on that issue? Q 15 No. I --16 MR. STREETER: Objection. 17 I'm sorry. Do you have an expert opinion on that issue? 18 19 A I have a -- I have a view that, not just 20 these companies but many, many entities all over the 21 world -- other companies and other government 22 entities -- have engaged for many, many years on 0276 trying to find the magic bullet. 1 And we've known for a long, long time 2 3 that there isn't one because tobacco is the problem. 4 0 All right. 5 Α And so, what you can do -- what we've learned -- and -- and nowhere in the world has anyone 6 7 come to a different conclusion -- you can try and 8 increase general and selective reduction of

```
9
     compounds, both -- of various sorts of compounds.
10
     And then in recent years, you can -- you can develop
     a way of manufacturing products that don't actually
11
12
     burn the tobacco, which may -- which may be a -- that
     could, in theory, represent a breakthrough.
13
14
                 And that's -- these companies are not the
15
     only ones that research this interest -- this issue.
16
     It's been researched by many, many other entities for
17
     a long time.
18
                 Let me go back to my question.
19
                 This may take longer than I anticipated.
20
                 You agree that there have been
     improvements in the quality of cigarettes as a result
21
22
     of the research and development by the tobacco
0277
1
     companies; is that correct?
 2
               Correct.
          A
 3
                Do you have an opinion as to whether it
     is possible that any of those improvements could have
 4
 5
     occurred at all earlier if the tobacco companies had
     spent twice as much money on research and development
 6
 7
     as they actually did?
                     MR. TURKEN: Objection.
 8
9
                 I -- in -- in testimony, various -- if we
10
     look at the happened, selective and general reduction
11
     occurred very fast.
12
                 The problem was coming up with products.
13
     It wasn't in the R&D. The problem was coming up with
14
     products that consumers would accept.
15
                And that, in part, was due to changing in
    the population of consumers -- was a very important
16
     issue, not matter what -- and that's one of the major
17
18
     drivers why weighted-average tar and nicotine levels
     fell, because very low tar- and nicotine-level
19
     cigarettes have been available for a very long time.
20
21
                 But we get new generations of smokers who
22
     are -- who willingly accept those products. That was
0278
    the primary -- the primary thing.
1
2
                 And I have looked at Premier -- a
 3
    particular example -- and the evidence I've seen is
 4
    that the technology wasn't there, independent of the
     money -- or a market, probably -- to do it any
 5
 6
     significantly earlier.
 7
                 So I looked at the specific things that
 8
    happened; and my conclusion was, a lot of it was
9
    driven by the market, by what consumers would accept,
10
     and by the -- what the -- and the other part, it was
11
     by what -- the technology that was available.
12
                      MR. ANGLAND: Could you read back my
13
     last question, please?
14
                      (Whereupon, at this time, the
15
                 referred-to question was read by the
16
                 reporter.)
17
                     MR. ANGLAND: Could you check and
18
     see if you missed the word "faster" there?
19
                      COURT REPORTER: I'm sorry. I
20
    probably did.
21
                      THE WITNESS: Oh, because that was
22
    not -- yeah, the question was whether -- I understood
0279
1
    your question, Mr. Angland.
 2
                      Any of the things that I have
```

3 concluded happened could have happened significantly 4 faster, "but for"; and my conclusion is "no." BY MR. ANGLAND: 5 6 Thank you. That was my -- I was looking 7 for a one-word answer. 8 And just to be clear, because we got a little disjointed there at the end -- your answer is 9 10 "no" to my hypothetical where the company spent twice 11 as much as they actually did on research and 12 development? MR. STREETER: Objection. 13 14 MR. TURKEN: Objection. 15 Okay. Let me go back -- forgive me if I'm being a little repetitive here. But I think with 16 17 that, you know, going back and forth with the 18 question, one or both of us may have lost the track. 19 Do you have an opinion regarding whether any of the innovations that occurred in the tobacco 2.0 industry would have occurred faster if the tobacco 2.1 22 companies had spent twice as much on research and 0280 1 development as they actually did? MR. TURKEN: Objection. 2 3 Not in terms of having any material 4 effect. And that is: Would there have been some 5 with weighted-average tar and nicotine ratings 6 falling substantially faster? No. 7 Would other -- would Premier have come into being significantly earlier? No. 8 9 So the -- the one thing that would have 10 made a material -- would have made a very material difference. And it doesn't have to do with how much 11 12 the company spends, and it had to do with the Carter Administration fundamentally changing U.S. policy. 13 If the public health community would have 14 15 decided to continue a program of trying to exhort 16 people to smoke safer products instead of -- instead 17 of trying to concentrate on people quitting and not 18 starting, weighted-average tar and nicotine and lots 19 of other things would have been different. 20 As a follow-up to that last point, I'm 21 going to ask you about nicotine in particular --22 because sometimes nicotine is included in adverse 0281 1 health effects, and sometimes it's used simply as an 2 addictive agent. I just want to make sure the record 3 is -- is -- is clear here. 4 Do you have a view regarding whether 5 there is anything that the tobacco companies could 6 have done between 1954 and the present to reduce more 7 quickly the amount of nicotine in the products that 8 they succeeded in selling to the American public? 9 Well, no. As you see in data in my 10 reports, there were pretty dramatic reductions in 11 nicotine pretty fast, in -- in the products that were 12 offered on the marketplace. 13 The problem -- and they were vigorously 14 promoted by the companies. The problem was consumer 15 acceptance. 16 MR. ANGLAND: Could you read back 17 the question, please? 18 (Whereupon, at this time, the 19 referred-to question was read by the

```
20
                 reporter.)
21
                     THE WITNESS: I'll give you all --
22
     I'll give you -- because, I mean, it's not a
0282
1
     yes-or-no answer. I have to explain.
                     And that is: There are a couple --
2
     there's a couple very important things to economists
 3
 4
     that shed light on this.
 5
                      One, the availability of low --
 6
     relatively low nicotine products in the market was
 7
     quick -- quite quick here. The products were
     vigorously promoted. And -- but it took time, of
 8
     course, for consumers to accept them.
 9
                      And, second, very importantly, if we
10
11
     look at all the rest of the world, as we know from
12
    research, the U.S. led almost everywhere else in this
13
    world, where this supposed conspiracy not to
14
    introduce safer products existed and which --
15
    restraining competition and restraining innovation,
16
     it's just inconceivable that the U.S. would lead the
     world, which is, you know, uncontroversial.
17
18
                      For the first 20 years of the
     industry, early '50s, the U.S. led the world in both
19
20
     introducing lower nicotine and tar products, and in
21
     also -- and in having success in the marketplace.
22
                     So the answer is that, what an
0283
     economist can do instead of speculating about what
1
 2
     would happen if some company spent a lot more money,
 3
     and what the science made available and things like
 4
     that -- and I have made conclusions about it.
 5
                     We can look in the marketplace, and
 6
    we can do benchmark -- and we could say, "Gee, if
 7
     it's faster here, what would be the basis for arguing
     that something would have been different, but for?"
 8
9
                      There's no support for that
10
    conclusion.
11
                Do you recall my prior question?
12
                Yes. Was there anything -- any -- could
13 it have been faster?
14
               Yes.
15
                And I've given you the answer, which is:
16
    There's no support for --
                I'm sorry. Maybe I missed it, but I
17
18
     still haven't heard the answer. I'll try again.
19
                Do you have an -- and if there are any
20
     words you don't understand, just ask me, and I'll do
     my best. I blow questions now and then, and I'm
22
     happy to try to correct it.
0284
 1
                 Do you have an opinion regarding whether
 2
     there is anything that any tobacco company could have
 3
     done from the period 1954 to the present that would
 4
     have led to a quicker reduction in the average amount
 5
     of nicotine in cigarettes sold to the public?
 6
                     MR. TURKEN: Objection.
 7
                      MR. STREETER: Objection.
 8
                 In weighted-average nicotine levels?
           Α
 9
           0
                 Yes.
10
                Not within the realm of any plausible
           Α
11
     conduct that I could think of.
12
               Okay. My question was whether you have
13
    an opinion. Do you mean, yes, and the opinion is
```

that it's not within the realm of any -- my question 14 15 is: Do you have an opinion? 16 Α Yeah. 17 Okay. And is that opinion that there is nothing plausible that any cigarette company could 18 19 have done, between 1954 and the present, that would have more quickly reduced the average amount of 20 21 nicotine in cigarettes sold to the U.S. public? 22 See, I -- I don't know what -- are you 0285 1 asking, the outcome in the market? Weighted-average nicotine level --2 3 Q Yes. -- as opposed to what's provided in the 4 Α 5 market? 6 Yes. 0 7 Α Yes; I have an opinion. 8 And was the opinion as I state, that's 9 there is nothing they could have done, the tobacco 10 companies, that would have substantially accelerated 11 their production? A -- substantially accelerated, that's 12 13 correct. That's my opinion. 14 Okay. Do -- as an economist, would you 15 say that cigarette companies, tobacco companies, have 16 an incentive to reduce the amount of nicotine in 17 products? It depends on the situation. 18 Α Are there any factors that would give 19 20 cigarette companies an incentive not to reduce the 21 amount of nicotine, as much as they might be able to? Well, remember, the facts are that, for a 22 0286 long time, very low tar/nicotine cigarettes have been 1 2 available. A product with essentially no nicotine 3 4 was made available. The problem is that people don't buy it; and that's because we know that the 5 primary -- the primary, quotation, benefit that 6 7 people get from smoking is the -- is the nicotine. 8 I, you know, understand your position 9 from having read your report; but I asked a different 10 question. 11 The question is: Are -- can you see any 12 what or any reason why cigarette companies may have 13 an incentive -- an incentive -- not to reduce the amount of nicotine in their cigarettes as much as 14 15 they were technologically capable of doing? 16 I can look to the -- I can look to the 17 evidence in the marketplace, which is -- I could look 18 at what they did, okay, which is they -- all of them 19 introduced dramatically lower nicotine products, and 20 they sold them. 21 Does that mean -- I'm sorry. I didn't 22 mean to cut you off. 0287 And -- so, I don't need to -- I don't 1 2 need to address theoretical incentives. I can look 3 at what they did. 4 Q Well, you may not need to address it; but 5 if you have an opinion on it, I'm entitled to hear it. And if you don't, I think that's just great. The jury ought to know that you don't have an opinion

8 on it. 9 My question to you, sir, is: Do you have 10 an opinion whether there is any incentive the tobacco 11 company might have to not reduce nicotine as much as 12 it was capable of doing? 13 And when I say "reduce nicotine," I mean, reduce the nicotine content of its cigarettes as much 14 15 as it was capable of doing. 16 MR. TURKEN: Objection. 17 I certainly know that there are 18 allegations made by various people, including the plaintiffs -- in this case, that nicotine's addictive 19 and that's the reason why you get your sales. 20 Why would you want to -- why would you 21 22 want to reduce nicotine? That would be crazy. 0288 1 The problem is, is that the market works 2 it out. People aren't going to buy it if it doesn't 3 have enough nicotine. 4 The companies had to compete to reduce 5 nicotine because there was a demand for it; and 6 that's what -- they did because of competition. 7 And it's not clear -- you know, the -the -- the reduction in nicotine levels were 8 9 responsive to market, and may have -- may have 10 kept -- you know, may have kept the market from 11 declining as fast -- because, as any situation, when it's your market you follow the market, where the 12 consumers go. You provide them the products they 13 14 want. And your sales don't decline, maybe, as much 15 as they otherwise would. 16 So based upon all the work you've done, 17 if I understand you correctly, it's your opinion that 18 there was no factor that gave cigarette companies an 19 incentive to not reduce nicotine as quickly as they 20 could; isn't that right? 21 MR. STREETER: Objection. 22 I don't know. That's -- that's a 0289 1 meaningless question. That's like: Did the -- did -- in any 2 industry, does the company have an incentive to raise 3 4 the price 20 percent above the competitive price? Of 5 course. 6 The question is: What -- what can you do 7 about it? You're in a competitive market; you have to -- you're governed by the market forces. So... 8 9 But -- but you -- but in that example, 10 you're able to ask whether the company would have an incentive to do it. You're able to analyze that 11 12 issue and express an opinion as to whether it has an 13 incentive; is that right? 14 Α Yes. I --15 And it may be dwarfed by other 16 counter-incentives or counter-factors; is that right? 17 The market discipline -- okay -- and -and -- and the problem here -- the problem you're 18 19 talking about is not so clear. 20 You're saying, the issue is -- certainly, 21 the cigarette companies want to have people continue to smoke. 22 0290 1 Now, if they continue to smoke with low

nicotine or high nicotine, that's fine. From the 2 company's point of view, either way is fine. They 3 4 just want to have customers buying products, as 5 anything. So if they will buy low-nicotine 6 7 products, which they've ended up doing, they get sales. And there's no benefit to the company in any 8 way from having -- "Gee, I wish those people bought 9 high-nicotine products" -- that's -- there's no 10 11 incentive there. That's the problem. 12 Incentive is getting people to buy the 13 product. And do you have a view regarding whether 14 there were any levels of nicotine in cigarettes at 15 16 which there might be an adverse impact on the 17 cigarette companies in that fewer people would continue to smoke after a while? 18 MR. STREETER: Objection. 19 20 No. I think the problem is: If you take 21 the hypothetical, the one company produces only De-Nic, they're not going to sell many products. 22 0291 1 Um-hum. 2 A So it's the competitive forces. It's 3 why -- you know, I'd like to have a 20 percent higher price, but if -- and the market's going to offer the market price, I'm not going to get any sales. 5 That's -- okay. So it's not -- it -- but 6 7 it has -- doesn't have to do with the nicotine. It 8 has to do with what people want to buy. 9 Q Now, when you say the market and 10 competition will dictate it, that presumes that in 11 fact competitive forces are working in the market; 12 correct? Which has clearly been the case. 13 Α I understand that's your position. 14 15 But -- but you do -- but your analysis is 16 based -- this bit of your analysis is based that 17 premise? 18 No, because it's not just the market. 19 It's what consumers -- what consumers will do. 20 It's very -- look -- look at European 21 countries, where rolling your own is 50 percent of 22 the market. 0292 1 Um-hum. Q 2 I don't care what the industry does; people are going to vote -- people vote with -- you know, with their -- with their own preferences. And 4 5 they decide what they're going to do. So, it's not 6 just the market. 7 Q Okay. 8 Α It's what consumers want to do. 9 Given all that, Dr. Scheffman, I still 10 want to be clear on the record: Do you or do you not have an opinion regarding whether there is any sense 11 in which tobacco companies have an incentive to keep 12 13 the nicotine level in cigarettes higher than they are capable of reducing it to and selling the products 14 15 MR. STREETER: Objection. 16 17 That -- if they can get satisfactory 18 sales?

```
19
                I think the evidence is very clear that
20
    what they've done is, they've helped drive the levels
     down, and people -- and consumers have accepted it.
21
22
                No. There's no basis for why they'd want
0293
1
     to sell more nicotine than less. Their point is that
     they want to sell cigarettes if someone will buy
2
 3
 4
                My question was whether -- whether you
 5
    had an opinion. Do you?
 6
          A As to what, now?
7
               Do you have an opinion as to whether
    cigarette companies have any incentive to not
8
9
    decrease the amount of nicotine in their cigarettes
10
    as quickly as they could?
11
               I think they have an incentive not to
12
    reduce nicotine to levels at which people won't buy
13
    the cigarettes.
14
          Q Is that the only incentive you can think
of that would inhibit the extent to which tobacco
16
    companies would lower the amount of nicotine in their
17
    products?
18
          Α
                Yes.
19
          0
                And bear in mind, I'm not asking whether
20
     something is true or false in the real world. I'm
21
     just asking whether there's any incentive you can
22
    conceive of that might prevent them --
0294
                     MR. TURKEN: Objection.
1
 2
                -- from wanting to lower nicotine, other
3
    than the one you identified?
4
                     MR. STREETER: Objection.
5
                     MR. TURKEN: Objection.
                If the customer base stays the same or
6
7
     could increase -- lowering nicotine, they have reason
     in the world to lower nicotine; and that's what
8
9
     they've done.
10
                And isn't it possible, Dr. Scheffman,
          0
11
    that if -- if nicotine were lower to the point that a
12
    lot of people still bought it and liked it, but over
13
    time grew less addicted or habituated to cigarettes
     and then dropped off smoking, stopped smoking, that
14
    the net effect could be adverse for the tobacco
15
16
    company?
17
                     MR. TURKEN: Objection.
18
          Α
                And that is, in fact, what's happened --
19
                Okay.
20
                 -- in part.
21
                And if -- given that fact, isn't it true
22
     that -- looking at that factor in isolation -- that
0295
    would be an incentive not to reduce nicotine as much
1
     as one would be capable of reducing it?
2
 3
               Well, that's really strange speculation.
 4
                Okay. You've a situation where you're
 5
    competing with companies that lower tar and nicotine.
    Let's talk of the situation of filters versus --
 6
 7
    versus -- versus unfiltered and -- and when lower tar
 8
    and nicotine really began to make substantial
 9
    inroads -- the company's going to sit on their hands
10
    while they realize they're getting killed by their
    competitors by offering filters or lower tar and
11
12
    nicotine -- because, well, gee, down the road people
```

```
might -- you know, people might be more inclined to
13
14
     quit.
15
                 That's just too -- that's too
16
    speculative. Again, imagine a company giving up
     marketshare today in sales, based on that speculation
17
     of -- of what could happen out in the future.
18
                And that again assumed that there was
19
20
     competition on this issue from the other companies in
21
     the industry; right?
22
                Well, there was undeniably competition on
0296
     the issue. I mean, there can't be any dispute, in
1
     terms of products available on the market and getting
 2
 3
     sales.
 4
                 It's again up to the finder of fact,
 5
     whose province neither you nor I will assert -- there
     is competition. I'm just trying to confirm that your
 6
 7
     analysis is once again based upon the premise that
 8
     there is competition in this dimension.
 9
                     MR. TURKEN: Objection.
10
                 No.
11
                 The theory is such to -- suppose you're a
12
     monopolist and you have this theory.
13
                Um-hum.
          Q
14
           Α
                 Okay?
15
                 But the problem is, is that -- and
16
     there's a demand, because of concern with health and
     everything, for lower tar and nicotine. But you
17
     don't offer it. Okay? What happens?
18
19
                 Well, you might take the hit now. You
20
     might -- quit rates might -- quit rates might be
     higher now. Wouldn't it be better to follow the
21
22
     market?
0297
1
                 That's -- in almost any industry, that's
 2
     what you do.
 3
                Let's take your example. Let's assume we
          Q
 4
     had a monopolist, one company in the world that made
 5
     all the cigarettes in the world.
 6
                 Let's assume, based upon its consumer
 7
     studies, that company found out that, all things
     considered, people would prefer lower nicotine
 8
     cigarettes -- at least, a lot of people would prefer
 9
10
     lower nicotine cigarettes.
11
                 But they also found out that, if this
12
     lowered nicotine to that level, it would be likely,
13
     after a couple of years of smoking at that level,
14
     that smokers would decide that they no longer really
15
     needed to smoke, the nicotine pull wasn't strong
16
     enough, and they would abandon smoking.
17
                 In that situation, putting aside how all
18
    the costs and benefits might balance for that
19
     monopolist, wouldn't there be a disincentive to the
20
     extent that lowering the nicotine level in cigarettes
21
     might eventually ween people from smoking cigarettes?
22
                You can -- you can create a speculative
0298
 1
    hypothetical --
 2
           0
                I have.
 3
                -- no, but you've assumed -- no, but you
 4
    assume -- you know, if you assume -- yes, I'm going
    to have to agree, if you make assume -- I'm saying,
     but you're assuming a way, we don't take any hit --
```

```
7
     because we're not offering consumers the products
     they want now, we don't take any hit now.
 8
 9
                I mean, there are not many markets --
10
    many markets like that, where -- where companies can
11
    take that sort of risk, no matter what their strength
     or their position is.
12
                Well, there aren't that many markets
13
14
     where people are addicted to the product, are there?
           A Yeah. But there --
15
16
                     MR. TURKEN: Objection.
17
                 -- there are a lot of people that -- not
     speaking as a medical expert, there are a lot of
18
     people that aren't addicted in the sense that
19
20
    millions and millions and millions of people have
21
    quit.
                 Um-hum. But in my example, then -- I
22
0299
     understand that you say you'd have to look at how
1
     many sales they'd lose because people rebelled
 3
     against not a low-nicotine cigarette. I understand
     that, but that would go into the calculus.
 4
 5
                 But it certainly could be true that the
    ratio of people they'd lose to the -- the people they
 6
 7
    would lose who wanted a low-nicotine cigarette would
 8
    be outweighed by the number of people that they would
 9
     lose if they gave the lower nicotine cigarette and
10
    those people were weened from it; isn't that a
    possibility?
11
                You know, we can do theoretical examples.
12
13
    It just seems to be totally irrelevant.
14
               Well, it may be; but it's my example; and
          Q
15
    I think it's relevant.
16
                And can't we -- couldn't we sit here and
17
    do the math and prove how there could be -- by -- if
18
    we chose appropriate percentages for the people who
     would leave because they didn't get the cigarette --
19
20
     the low-nicotine cigarette -- versus the people who
21
     would leave if they were weened from high-nicotine
22
     cigarettes -- couldn't we come up with an example
0300
    where it would be in the net economic interest of the
1
    monopolist, in our hypothetical world where there's
 2
     only one cigarette company -- where it would be the
 3
 4
     economic interest of that monopolist to not lower
 5
    nicotine as much as it could?
 6
                     MR. TURKEN: Objection.
 7
                That's possible, isn't it?
           Q
 8
                Is it a world monopolist?
          Α
9
          Q
                Yes.
10
                Oh, it's a world monopolist.
          Α
11
                I said "world monopolist."
          Q
          Α
12
                Okay. World monopolist.
13
                No entry, no one can enter?
14
          Q
                Let's assume that.
15
           Α
                 Okay. Right.
16
                 And then you assume everything else --
17
     then, I guess -- you know, it's possible -- it's
18
     possible as a matter of theory to get that result.
19
                Okay. Now, in the automobile industry,
20
     what percentage of the important developments,
     technological developments, have occurred outside the
21
22
     industry?
0301
```

```
1
           Α
                Outside the manufacturer?
 2
                Yeah.
           Q
 3
           Α
                A lot.
 4
               Okay. And when you talk about
     developments in that sense -- oh, let me give an
5
     example. I just want to figure out what you mean by
6
7
     some of your -- you know, statements in your report.
 8
                Automobiles use micro-chips in them;
9
     would you agree with that?
10
                Yes.
          Α
11
                 And micro-chips were not invented, in the
12
    first instance, by the automobile industry; is that
13
    right?
14
           Α
                 Correct.
15
           Q
                Is that an example of the sort of
16
     "development" that you're talking about in, say, the
17
     automobile industry that came from outside the
18
     industry?
19
                That's one -- that's one sort of example.
         Α
20
               Okay. What other sorts of examples are
21
     there?
22
                The automobile manufacturers are -- much
0302
1
    more today -- but are project managers and assemblers
 2
    of parts. General Motors, in particular, has been
 3
    much more -- integrated -- but -- but the very large
 4
    part-supplying industry and lots of contract research
     outfits have -- have historically been very important
 5
     to innovations in the automobile industry.
 6
 7
               Um-hum. So that's a -- you're talking
 8
     about a situation where, basically, the automobile
9
     companies procure parts from others.
10
                Those parts might improve significantly;
11
     and thus, the final car is improved significantly.
12
     Is that right?
13
                Yeah; but not just parts. That is,
14
    the -- suppliers often produce the critical
    innovation. "We can do this" -- look at the air bag,
15
    as just one example. But a number of things have
16
17
    come from the parts industry, the innovations.
18
               Um-hum.
19
                Parts and components and services.
          Α
20
               What about the semi-conductor industry;
21
    would you say the same was true there?
22
          A Certainly, a lot of the -- a lot of the
0303
     innovation has come in that case from -- from outside
1
    the industry entirely, from basic and applied
 3
     research done in labs and done by universities.
 4
                Um-hum. What about the prescription drug
 5
     industry; how much of the innovation there comes from
 6
     outside the industry?
 7
                These days, a lot.
 8
                 But in the old days, where it was mainly
 9
     a chemically -- chemical research -- a lot more of it
    was done in-house.
10
11
                 But there was always, you know, a
12
     substantial role for contract research with
    universities and independent labs and researchers and
13
14
    things.
15
         Q
               Um-hum.
16
                 Could we take a short break?
17
                     MR. ANGLAND: Sure.
```

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VIDEOGRAPHER: Off the record at
18
     3:44.
19
20
                     (A recess was taken.)
21
                     (Scheffman Exhibits Number 3 and 4
22
                were marked for identification.)
0304
                     VIDEOGRAPHER: Back on the record at
1
2
     3:49.
3
                     BY MR. ANGLAND:
4
                Dr. Scheffman, if you'd look at page 103
5
     of your report; and I just want to ask you about the
     bottom line -- in particular, about what I'm sure is
 6
7
     a typo. But I just want to be absolutely clear.
                In the bottom line, do you see the word
8
9
    "counties"? Should that be "countries"?
10
          Α
                Yes.
11
                Okay. Otherwise, I was going to have to
          Q
     ask you to point me to all the county -- cross-county
12
13
    analyses you had done.
14
                You state that -- in paragraph 291 of
    your report -- that, in connection with a 1986
15
16
    consideration of a ban on cigarette advertising, no
17
    consensus appeared that a ban on significant
18
    advertising would significantly decrease smoking
19 prevalence in the U.S. Do you see that?
20
          Α
               Yes.
21
               Did a consensus appear that the ban would
22
    not significantly decrease smoking problems in the
0305
1
    U.S.?
2
          Α
                No.
3
                Okay. There -- there basically was no
          Q
4
     consensus?
5
                Well, I think it's stronger than that.
                There was a strong consideration at that
6
7
     time, as there have been at various other times, of
     perhaps promulgating a ban. And policy makers
    decided in the end that, for a variety of reasons, it
9
10
    wasn't -- it wasn't warranted.
11
               Okay. I'm -- I'm just trying to figure
12
    out what -- what -- what position you're taking here
    on consensus.
13
14
                I understand that there wasn't a
15
    consensus saying, "Yes, a ban will have this big
16
    effect on smoking problems."
17
                Are you saying that there was a consensus
18 to the opposite effect, a consensus that it would not
19 have an effect -- a ban would not have a significant
20
     effect on smoking prevalence?
21
          Α
               No.
22
                So there -- there was no consensus either
0306
1 way, then?
               Yeah. All I'm saying is: This didn't
2
 3
    arise in a vacuum. Someone seriously considered
 4
    and -- considered it. And there wasn't -- they just
 5
    decided not to go forward with it. That's all.
 6
    wasn't a consensus.
 7
               Okay.
          Q
 8
               There was a consensus -- there was a
          Α
 9 consensus to maintain the status quo, by policy
10
    makers -- obviously --
11
               But what you're not saying, that
          Q
```

everybody who looked at the data said, "Yep, it's 12 absolutely clear. There will be no significant 13 reduction as a result of an advertising ban"? 14 15 A -- clearly, whether people strongly 16 advocated a ban. 17 Okay. At the risk of being slightly repetitive, let me just see if I can sum this up and 18 19 maybe conclude my examination. If I understood you correctly, it's your 20 21 position that there's basically nothing the cigarette 22 companies could have done, in terms of public 0307 statements about the health consequences of 1 2 cigarettes, between 1954 and the presence, that would 3 have substantially reduced the number of people who 4 smoked in the U.S. -- nothing beyond whatever they 5 did -- is that correct? MR. STREETER: Objection. 6 7 That would have had a substantial long-term effect. 8 9 Okay. Q For a whole variety of complicated and, 10 Α you know, factual bases, yes, that's my conclusion. 11 12 Q Okay. And in giving that -- in 13 concluding that there is nothing the cigarette 14 companies could have done that would have, to a 15 substantial degree, on a long-term basis, reduced the number of smokers in the United States -- does 16 that -- is that true even if all the cigarette 17 18 companies had taken the same public position 19 regarding cigarettes being terribly dangerous to 20 people's health? 21 Well, see, I don't -- you know, I got down this hypothetical this morning. And -- and I 22 0308 can't separate my answer from what could plausibly 1 2 occur. 3 That's why I asked you, in -- in your 4 doom's day scenario is: "And after that, we turn --5 we turn out the lights, because we're not going to sell this product anymore." 6 7 Would that have had an effect for a while? Well, it -- it -- it certainly could have. 8 9 But I'm talking about, within the 10 plausible, within the bounds of anything we've ever 11 known that's happened in human history about 12 companies facing this sort of problem -- if the 13 companies would have acted differently in their 14 public posture on the smoking and health issue, my 15 conclusion is it wouldn't have had any significant 16 long-term effect on smoking behavior. 17 Okay. To try to make it more specific to 18 avoid ambiguity about, what does the company say --19 if what the companies had said was -- and if they had 20 all said this -- and this is the only sense in which 21 my question may be a little different from what I asked this morning -- all the companies had said, 22 0309 "We've all looked at it. And you know what, if you 1 2 smoke cigarettes they will probably kill you, in the 3 long run." 4 Is it your opinion that that would have 5 had, in the long run, no appreciable effect on the

number of smokers in the United States? 6 7 MR. STREETER: Objection. Well, that -- I mean, I -- that at --8 9 that at no time would have been an accurate statement by anybody. No one has ever made such a statement. 10 Well, let's just -- I'm sorry. 11 One of the things that would have 12 Α 13 happened in '54, if the companies would have said 14 that, is a lot of people in the medical community 15 would have said, "That's crazy. That's just not 16 right." 17 We're not saying there's -- but you're saying that every individual smoker is likely to die 18 because of smoking? And we're certain in 1954 there 19 20 would have been tremendous controversy on the other 21 side on this issue. 2.2 Okay. Let me --Q 0310 1 So I just can't -- I don't -- I can't --2. have difficulty really being able to deal with a hypothetical that just -- which is impossible to 3 4 understand how it could happen. 5 Let me give you another hypothetical, 6 then. Let's assume that in 1964 every cigarette 7 company came out and said, "We've looked at it. And 8 we have concluded that the studies are right, that if 9 you smoke that will increase your chance of dying of lung cancer by roughly 1000 percent." 10 MR. STREETER: Objection. 11 12 That's stronger $\operatorname{--}$ that's much, much 13 stronger than what the Surgeon General said in 1964. There wasn't a consensus. 14 15 And what I'm --There wasn't a basis for -- the -- I 16 couldn't understand -- I couldn't sort of get my mind 17 around certain hypotheticals. 18 19 I can say, "Suppose the companies -- when 20 the Surgeon General's report came out -- and said, 21 'We agree with the Surgeon General.'" 22 Okay. That's not my hypothetical. 0311 And you had -- and because you and I may 1 2 disagree about what the epidemiological evidence shows -- and, of course, I at least don't get to 3 express an opinion on that issue -- I just have to 4 5 give you a hypothetical. The jury will decide what they thought the relative risk known to people was in 6 7 1964. 8 I'm not -- I'm not evaluating -- I'm 9 saying what the Surgeon General said. 10 The Surgeon General in 1964 didn't say 11 that. 12 Yeah; and I'm not talking about what the 13 Surgeon General said at all. Let's make that clear. 14 I'm asking to you consider the following 15 example: Let's assume the cigarette companies, looking at the -- whatever evidence they looked at --16 17 came to the conclusion that smoking cigarettes 18 increased one's -- one's chances of dying from lung 19 cancer by 1,000 percent. And they came out and make 20 a public statement to that effect. 21 In your opinion, would that have had any 22 substantial long-term effect in decreasing the number

0312 1 of smokers in the United States, in that hypothetical 2 situation? Well, I -- I -- I just have -- I don't know whether I can -- whether it's possible to 4 5 envisage that -- I could envisage a -- you know, a -situations contrary to what actually happened but --6 7 that you could conceive of -- okay? 8 You're, like, ask -- you know, had asked 9 me: If -- if the companies blew up their factories 10 and everything like that, would the world have been different? Well, yeah, it might have been. 11 But I can deal with -- I can deal with 12 hypotheticals that didn't occur. I can't deal with 13 14 things that -- they would say something that was --15 on which there was clearly not a scientific consensus in 1964 and not any basis for it? 16 17 Well, just to be clear, I believe we're 18 going to offer proof that there was a basis for that 19 in 1964. I don't expect you to agree with it. 20 But I'm now asking you: If, in fact, the 21 companies had made those statements -- and I realize, 22 you say that's an unreal hypothetical -- but I'm 0313 1 asking you: If, in fact, they had made those statements, do you have a view regarding whether that 3 would have had any long-run effect in substantially reducing the number of smokers in the United States? 4 5 Well, I have -- I have a couple answers. 6 And one -- and I'll try and be brief on 7 the others. 8 There's lots of -- there's lots of 9 evidence, historically, within the U.S. and across other countries that, although that would have been a 10 big story, it -- it probably wouldn't have had a 11 significant long-term effect. 12 13 Second, the problem with -- the problem 14 with your -- you asked me to -- you posit a 15 hypothetical in which there was definitely not a 16 scientific consensus on that, in which people 17 understood, in the Surgeon General committees and in public policy, that these were serious questions of 18 19 people's health. 20 There are also serious issues of 21 employment and other sorts of things, reliance on the 2.2 industry. That's why the -- why the government was 0314 1 very careful. 2 And what would have certainly occurred, 3 if someone had done that sort of thing -- and they 4 did to some of the people who were more vocal on 5 saying, "Wait a minute. We don't have that -- we 6 don't have a basis for saying that. There is a 7 problem here probably, but we don't have a basis for 8 saying that." 9 So in that -- in your hypothetical world, 10 if the Surgeon General comes out and said, "These 11 guys are crazy. The science isn't there to make that conclusion" -- that's the problem with -- that's the 12 13 problem with -- with the hypothetical, one of the 14 many things. 15 I can't -- you know, it's just much too 16 speculatively to figure out what would have happened.

```
Given all that, do you have an opinion
17
18
    regarding whether such a statement by the tobacco
     companies would have had a substantial long-term
19
20
     effect in reducing cigarette smoking?
                The question is just whether you have an
21
22
     opinion.
0315
1
                     MR. STREETER: Objection.
2
               About some completely unrealistically
    hypothetical? I can't tell you more than I did.
3
4
         Q Well, what I'm asking you to tell me is
     whether you have an opinion.
 5
                If your point is you don't have an
 6
 7
     opinion because it's too hypothetical, I understand
 8
     that answer and I move on to my next point.
9
                I'm just trying to find out whether you
10
    have an opinion.
11
                    MR. STREETER: Objection.
12
               It -- it's -- it's too incomplete a
13
    hypothetical.
               If I asked you -- if I amend the
14
15
    hypothetical just to say, hold everything else in the
    world constant and just inject that one statement in
16
17
    1964 -- everything else up to then constant,
18
     everything else occurring then constant -- do you
19
    have an opinion -- my question is just whether you
20
    have an opinion as to whether such a statement would
    have, in the long run, caused a substantial decrease
2.1
     in smoking prevalence in the United States.
22
0316
                And this occurs in 1964?
1
          Α
2
                Yes.
          Q
3
               The best we can tell from the evidence,
 4
    the answer is: It would have been a big story, but
     it wouldn't have had any significant long-term
 5
     effect.
 6
 7
                Thank you.
          Q
8
          Α
               But I'm trying to address real evidence
9
     with a totally -- a totally unrealistic hypothetical.
10
          Q Well, in the end the jury gets to decide
11
    whether the hypotheticals are realistic or -- or not.
    But I understand your -- your observation.
12
                I would ask you to look, Dr. Scheffman,
13
14
    at what has been marked as Scheffman Exhibit No. 2;
15
    and ask if you can identify that for me.
16
          A
               Yes.
17
               What is it?
          Q
18
               It's a list of materials reviewed, that
19
    were turned over in connection with this report.
20 Q Is it a list of the materials that you
21
    relied on in coming to your conclusions?
22
          A Well, I don't -- I never use "relied on"
0317
1
    because it means something a lot -- it is in
    materials that I -- that I did -- among the materials
    I reviewed and that I thought provided you with a
 3
 4
     complete basis for what my -- where my opinions came
 5
     from.
 6
          Q
                Okay.
 7
                I have reviewed a lot of other materials.
                But, you know, it would be much, much
 8
 9 vast -- we tried to, especially since we've testified
10
    many times, now, that -- try and -- all right, let's
```

```
identify the materials that are most relevant.
11
12
         Q Well, let me distinguish between two
13
     different categories of materials not on the list --
14
    potentially not on the list. Okay?
                 I understand you might have looked at
15
16
    many documents and just decided they didn't bear on
    the issues enough, and so you didn't, as I would use
17
18
    the term, "rely upon it." You read them, but they
19
     didn't mean anything.
20
                And I understand that those would not
    have been included on the list. Is that fair?
21
22
          Α
                Yes.
0318
                Okay. In contrast, if there were 10
1
 2
     documents that tended to support a given proposition
 3
     you were making, and you only include seven on the
     list, but will rely at trial upon the fact the other
 4
     three documents are there -- then that's something
 5
     I'd want to know about.
 6
 7
                 So my question is: Are you going to rely
     at trial on any documents not included on that list
8
9
     or handed me -- to me today by your counsel?
                There are, I think, a small number -- ten
10
11
     additional documents that were inadvertently left off
12
    the list.
13
                     MR. STREETER: Can I just add one
14
    more caveat?
15
                     MR. ANGLAND: Yes.
                     MR. STREETER: My transmittal letter
16
17
    to you also said that the documents cited in the
18
    report are reliance materials as well.
                     MR. ANGLAND: Oh.
19
20
                     MR. STREETER: And those were
21
    produced to you as well.
                     MR. ANGLAND: That's -- I accept
2.2
0319
    that -- that amendment.
1
 2
                      BY MR. ANGLAND:
 3
                 So the question is: Between the
 4
     documents on that reliance list and the -- which is
     Exhibit 2 -- and the documents themselves cited on
 5
    Exhibit 1, is that the universe of materials upon
 6
 7
     which you -- I have to use the word -- rely, in
     support of the conclusions you give in your report?
 8
9
               Well, I can only tell you this: These
10
    are -- to the best of my knowledge, one, give you --
11
     give you a manageable basis of my opinions, some of
12
     the bases of my opinions.
13
                And I would provide the materials from
14
     which -- to the extent I use any specific materials
15
     in my testimony, it would come from this.
16
                 But there's an issue here. I very
17
     extensively studied the history of the industry,
18
    going back to the late '40s, both in the U.S. and
19
     worldwide. And we don't -- that's a mountain of
20
     things. Okay?
                 And so I'm -- I presume we're going to --
21
22
     I'm going to testify at trial and say, "I've -- I've
0320
     just -- we've just, you know, exhaustively, as best
1
 2
    we can, looked at everything we can. And the -- and
 3 the net conclusion of it is this, and that this --
     this document is a represent -- representative
```

```
quotation of what -- of what -- of certain things
 5
    that were happening in 1952," or whatever.
 6
 7
               Do you recall including on your reliance
8
     list a thick document relating to genital herpes?
               I remember something about -- I remember
9
     something coming up somewhere where that -- I mean,
10
     that's hard to forget. So there might be.
11
12
                My question for you, sir, is: Can you
13
     give me some help and let me know for what you were
14
    relying on --
15
         A
                Point me to the document.
                     MR. ANGLAND: Off the record.
16
17
                      I'm not even sure I have it with me,
18
    but I'll see in a moment.
19
                      (Pause.)
20
                      MR. ANGLAND: No; I don't.
21
                     BY MR. ANGLAND:
2.2
                But I take it that you don't, as you sit
0321
1
    here, recall in which respect you --
               Well, I don't -- I -- I dimly recall some
 2
 3
     document that had that.
                     MR. ANGLAND: Actually, I may be
 4
 5
    able to --
 6
                     MR. STREETER: I take it, we're back
 7
    on the record now?
8
                     MR. ANGLAND: Yeah.
9
                     BY MR. ANGLAND:
                Let me not mark as an exhibit but -- but
10
11
    wander around the room and show you a document.
12
                (Witness perusing.)
13
                Oh, yeah. Yeah.
14
                Okay. Can you tell me what -- what
    propositions are there or what you relied upon that
15
16
    particular report for?
17
                Well, we have a discussion in the report
18
    that talks about how -- how the scientific method
19
    works in practice in government policy on decisions
20
    on drug approvals and everything like that, that
21 there isn't -- you know, unanimity is not the
22
    required -- is not required. It's sort of a
0322
    consensus, maybe, with some formal rules as to
1
 2
     what -- and this is an example, I think, of -- this
 3
     is -- we cite some examples.
 4
                And I best recall, this is maybe one that
5
     explain -- that gives you an overview of what the
 6
    process is like in drug approval with FDA.
 7
                     MR. ANGLAND: Okay. I have no
8
    further questions.
9
                     VIDEOGRAPHER: Should we go off the
10
    record?
11
                     MR. ANGLAND: Yeah, why don't we,
12
    for a minute -- a minute -- just while we sort papers
13
     and a few other things.
14
                     VIDEOGRAPHER: Off the record at
15
     4:08.
16
                      (A recess was taken.)
17
                      VIDEOGRAPHER: Back on the record at
18
    4:10.
     EXAMINATION BY COUNSEL FOR THE PLAINTIFFS, NATIONAL
19
20
     ASBESTOS WORKERS MEDICAL FUND, ET AL.:
21
                     BY MR. MINTZER:
```

```
22
                Good afternoon. This morning I
0323
1
     introduced myself. My name is Glenn Mintzer, and I
     represent the plaintiffs in the National Asbestos
3
     Workers case.
                I've just got some follow-up questions
4
     and some things related to the National Asbestos
5
     Workers report. I'll try not to go over anything
 6
7
     that you've already talked about.
8
                I marked two exhibits. Could you take a
9
    look at Exhibit 3 and identify that for me?
               Yes; that's my report, expert report,
10
    produced in connection with this matter.
11
              Okay. And is your CV in there as well?
12
13
          Α
                Yes.
14
               And is that -- could you just look and
15
    see if that's your most current copy?
16
         A No. September of 1999.
17
               Okay. Have there been significant
    changes since then?
18
    A I have some other cases in which, if I
19
20
    put under specific testimony, would show up.
         Q Okay. Is that the only change you can --
21
22
          Α
               I've moved.
0324
1
               Okay.
          Q
2
               My office address is moved.
          Α
3
               And do you know what those cases are, the
4
    additional cases?
 5
          A Well, we have this -- we have the Blue --
    the Blue Cross case. I have another workers' comp.
 6
7
     case, at least -- let's see, which one is this? -- at
8
     least one, if not two, that are somewhat similar to
     the Sandwich Chef case, in which I've produced a
9
10
     report.
                I produced a report in a case called
11
12
     "Simon," another smoking and health case.
13
                I produced a report in a case pending in
14
    trial right now on FTC suing a company alleging it's
15
    a pyramid scheme.
                I don't -- you know, I don't know
16
    whether --
17
18
     Q
                Okay.
19
                We might -- you know, I could
20
    cross-reference January's.
21
         Q Is that a more recent copy?
22
               That's more recent than -- than the Blue
0325
1
    Cross case. That's January 2000. And so, I have the
     Felice case. I forgot about that.
 3
                I had a case involving laser --
 4
     laser-driven products used in cosmetic surgery. And
    I should have -- and I produced a report.
 5
 6
               Okay. And does Exhibit 3 contain all of
 7
    the opinions that you plan to offer at trial in this
8
    matter?
9
                Certainly, it was my intention to try and
10
    provide that.
11
          0
               Okay. At least, up until this time?
12
          Α
               Yes.
13
               Okay. And could you take a look at
14 Exhibit 4, please, and identify that.
15
          A
               Well, this is the same thing that I was
```

```
just talking with Mr. Angland about. It's a -- it's
16
17
    a exhibit. It's -- the same answer: We're trying --
    trying to provide, you know, as -- as complete a
18
19
    basis for -- you can understand where -- what --
    where my opinions came from, in terms of source
20
21
    material.
22
                Okay. So your characterizations about
           0
0326
1
    Exhibit 2 would be the same for Exhibit 4?
2
                Yes.
                 Okay. And with the exception, again, of
 3
    the documents that counsel provided us this
 4
    morning -- to the best of your knowledge, between the
 5
    things that are mentioned in your report -- and I
 6
 7
    think there's an additional materials section also
 8
     appended to your report -- and Exhibit 4, is that all
    the materials -- I know you don't like the word
9
     that -- but that you plan to rely on?
10
11
          A Well, I say the same thing: I don't --
12
     anything I would specifically use in the trial is in
     this -- as best I know, is in this material.
13
14
                 I think this accurately -- it -- it
15
    provides you with a manageable set of material that I
16
    can point to and limit myself to that and say, you
17
    know, "This is where this came from," with a caveat
18
    that I certainly am prepared to say, "I looked at a
19
    lot more stuff." And so, what I'm citing here about
     what happened in 1954 has a lot of -- more bases than
20
21
     this particular document.
22
                     MR. STREETER: I'd just like to
0327
1
    state for the record, as well: In connection with
     the expert report that was produced in the National
     Asbestos Workers case, there were a number of other
 3
     lists which purported to include all the documents
 4
 5
     reviewed by LECG.
 6
                      So it's not just this reliance list
 7
     and this report that has been produced to the
    National Asbestos Workers plaintiffs, in connection
 8
9
    with documents he has reviewed.
10
                     MR. MINTZER: Okay. But as far as
    the documents he's relying on, as opposed to the
11
    documents he has reviewed, is that the list or are
12
13
    you telling me you have incorporated those additional
14
    lists yourselves?
15
                     MR. STREETER: I -- I mean, I leave
16
     that to the testimony he has given.
17
                     MR. MINTZER: Okay.
                     MR. STREETER: But I just wanted,
18
19
    for the record -- for it to be clear that you had the
20
     production of lists of many more thousands of
     documents that were reviewed in connection this
21
22
    matter.
0328
1
                      MR. MINTZER: Okay.
 2
                      BY MR. MINTZER:
 3
                Have you reviewed any other expert
 4
     reports, plaintiff expert reports, in the National
 5
     Asbestos Workers case besides Dr. Phillips' report?
 6
                Remind me who some of the other experts
 7
     are.
 8
               We have a Dr. Harris. We have Benowitz.
     There was a Dr. Cleary and Dr. D'Orducci.
```

```
Well, I -- I -- see, I've read reports by
10
11
    Dr. Benowitz. And this is listed as "the"
     Dr. Harris? So -- okay.
12
13
                So -- I've read -- my report clearly
     focuses on Dr. Phillips. I've read Dr. Benowitz' and
14
15
    Dr. Harris' reports in connection with, you know,
16
     some matters.
17
          Q Okay. So you don't recall whether you
18
    read his report in the National Asbestos Workers
19
     case, specifically?
20
          A I think I may -- I -- you know, I think I
21
     looked at Professor -- Dr. Benowitz, because I don't
    know whether -- that may have been the first time
2.2
0329
1
    that I read a report by him. But -- bit I don't
2
    know.
3
                Okay.
                     MR. STREETER: Just for the record,
4
     in terms of your list of experts --
5
6
                     MR. MINTZER: It's not adjusted.
7
                     MR. STREETER: Right.
8
                     Many others than that.
9
                     BY MR. MINTZER:
10
                This morning you talked a little bit
11
     about the assistance that you got from Navigant -- is
12
     that correct? -- Consulting, in doing your report?
13
                Yes.
          Α
                At least, you did -- it was -- the
14
          Q
15
    question was asked as to Blue Cross and Blue Shield.
16
               And I would just ask: As far as the
17
    National Asbestos Workers report that you prepared,
18
    did you also receive that same assistance regarding
19
     the documents that you testified to this morning?
20
                Yes.
                Okay. Did they provide you any other
2.1
          Q
22
     assistance, other than the document collection that
0330
1
    you talked about this morning?
2
         A Oh, yeah. Yes.
3
                Okay. And what kind of assistance was
4
    that?
 5
               Okay. Well, they -- they -- I, in most
     cases, didn't create tables of numbers or graphs
 6
 7
     or -- you know, physically at the computer -- or I
8
    did in some -- but in most cases, it was done under
9
    my direction by research assistants or at least
10
     compiling data, reviewing documents, and discussing
11
     documents.
12
                I worked closely with some people on
13
     this, in reviewing -- in reviewing the complaint,
14
    reviewing the documents, planning -- you know,
15
    deciding what was being in the report, working out
    how the report would come into creation.
16
17
               How many different people worked on the
18
    report -- I could say, the National Asbestos Workers
     case. I know, at least, I'm making the assumption
19
20
     that your reports are somewhat cumulative. And if
     that assumption's wrong, let me know. But --
21
22
               So you're asking specifically for
0331
1 National Asbestos Workers?
         Q I would say for all the reports that
 3
    you've done; but if it was different from National
```

Asbestos Workers, then -- anybody else -- then I 4 5 certainly would want to know that. Well, if we go back to Minnesota, from 6 7 the beginning, we had -- you know, there -- we've had a lot of work people work on this over time, when we 8 started from the beginning. 9 By the time we got to National Asbestos 10 11 Workers, a lot of -- a lot of the basic work already had been done. So, a much fewer number of people by 12 13 that time. 14 Okay. Can you tell me how many people or approximately how many people during the Minnesota 15 situation worked with you? 16 Oh, we probably had more than 20 people 17 18 doing various things at various times. 19 Q Well, what about for National Asbestos 20 Workers, for that report; how many people assisted 21 you? Sorry. 22 Well, we have -- in terms of doing any 0332 significant amount of things, my guess is less than 1 10. But there may be -- you know, there may be some people who did some hours doing some things. But we 3 4 were the main people doing things. 5 Okay. You talked this morning about some 6 interviews that you did of people at Philip Morris. 7 Did you take any notes at those interviews or otherwise record the interviews? 8 9 Α No. 10 Q Do you have a -- a recollection of, when 11 you spoke with Cathy Ellis, what topics, generally, were covered or that -- let me strike that. 12 Were there specific topics that you went 13 14 to Philip Morris with, when you spoke to Cathy Ellis, that you brought up that you wanted to discuss? 15 Well, I read Cathy Ellis's deposition and 16 17 testimony -- at least, deposition and a number of things. She was one of the Philip Morris employees 18 19 put forward to talk about R&D and science in Philip 20 Morris. 21 And so, I -- I was learning more about, 22 you know, biological testing and other sorts of --0333 1 other sorts of scientific work. 2 And -- and a lot of it was about Accord, 3 which was not allowed to be included in the Minnesota case. And so, I didn't know a lot about it. And so, 4 5 I went and I actually saw an Accord. And then we 6 talked but how it was -- came into being and how it 7 was being -- etc. Are there any other -- I'll call them 8 9 "projects" or "products" that you recall speaking to 10 Cathy Ellis about? 11 There were -- you know, I talked -- we --12 we -- I had -- I was familiar with her and her other 13 Philip Morris testimony, in which there was a general discussion of the history of Philip Morris's R&D 14 15 activities. And I -- I -- I asked -- I can't remember 16 17 specifically what. But I asked some things about 18 some specific things that appeared in documents 19 about -- or that I didn't seem to have as much 20 information about what that -- what this research

```
21
    project was about.
22
                And we talked about the multi-filter or
0334
1
     some things like that, which I since know
     considerably more about than I did at that time.
2
3
                Did you speak to anybody at Philip Morris
     in the marketing department?
4
 5
               Well, as I said, someone in -- well,
 6
     someone in sales, as I said, in Minnesota.
 7
                 I talked to someone, I think, in
 8
     international marketing.
9
                Do you remember who that was?
10
          Α
                No.
                Okay. With respect to RJ Reynolds, again
11
12
     did you take any notes or otherwise record the
13
     interviews that you did or that you had there?
          Α
14
               No.
15
                And I believe you said, you talked to
    Mr. Townsend at RJ Reynolds?
16
17
         A He was one of the number of people that
18
     were there.
          Q Okay. Do you recall -- did you have
19
20
     specific questions for Mr. Townsend?
2.1
          A One of the -- one of the main reasons for
22
    visiting RJR was to actually see, in -- in real life,
0335
1
    the manufacture -- you know, and talk about the
    manufacturability of Premier and Eclipse, to see --
 2.
     and see cigarettes being manufactured, and talk with
 3
 4
     manufacturing people and other people on
 5
    manufacturability issues.
 6
                We talked more about Premier; in general,
7
    about what -- what people in the company had done in
    various respects, like going and -- elaborated more
8
    than in the documents about very extensive efforts by
9
     company people to go out and put on presentations for
10
11
    health-care groups or anyone that was interested in
12
    talking, to tell them about the science and the
13
    product Premier -- what -- and what it -- what it was
14
    trying to accomplish and what the -- what the data
15
    seemed to show.
               Is there any reason why you didn't speak
16
17
    to anybody from the other tobacco companies?
          A No. A lot of this -- as I said, the -- a
18
19
    lot of this was -- the focus was on Premier, Eclipse,
20
    Accord, De-Nic, things in which -- because of the
    recent nature and stuff, the documents weren't so --
21
22
     weren't so clear about what -- various things about
0336
     them, and that -- and in -- some of them were not --
1
 2
     you know, were not subject to testimony, were not
 3
     allowed to be subject to testimony in Minnesota.
 4
                 So this was sort of doing -- getting sort
 5
     of more information on that, so we don't have a
 6
     similar BMW product or Lorilard or Liggett product
 7
     like that. That was the main reason.
                Okay. Also this morning, you talked
 8
 9
     about how you obtained the documents that you looked
10
     at for your report.
11
                And you said that you conducted a review
12
     of the documents in Minnesota, and also you were
13
     given some documents by attorneys; is that correct?
14
                     MR. STREETER: Objection.
```

```
Well, I -- I mean, there were three
15
16
    classes of things: One, through the complaint and
     other science experts' reports and other of these
17
18
     sorts of things and things in litigation -- and I got
     the documents that were offered by the other side.
19
20
     We always have the documents of -- of -- of the -- of
     the plaintiffs and their experts in all cases.
21
22
                Then we did our on search, partly in -- a
0337
1
    lot of it was in the archive in Minneapolis. But in
     other cases, we asked counsel -- because the archive
 2
    was not very easy to search -- "Can you give us some
 3
    more documents on this, like Premier, like Eclipse,
 4
     like XA, like Hill and Nolton stuff, and -- you know,
 5
 6
    gentlemen's agreements or -- you know, anything --
    you know, any agreement you could find?" -- okay?
 7
                And we found a lot of stuff.
8
9
                As I indicated, I -- in my Minnesota
10
    report, I cited a number of documents in which there
11
    were statements someone could interrupt as being
     consistent with an agreement that weren't -- that
12
13
     didn't show up on the other side.
                We kind of do a complete search and see
14
15
     if we can find whatever is -- how many documents --
16
    things like that.
17
               Okay. So you only got documents from
         Q
18
    counsel when you requested them? You didn't start
     off by getting any documents from counsel?
19
          A Well, we started at the very beginning by
20
21
     getting the complaint. So there was a report at that
22
     point and there was a lot of documents -- we got a
0338
1
    lot of documents in connection with that.
                And we -- as we formulated a research
    plan and understood better what the issues are, we
3
    said, "Look, we need to have -- you know, we need to
 4
 5
     get a handle on documents about research and
 6
    development, not advertising -- on new product
7
    introduction, on -- you know, contacts between the
8
    companies and other sorts of things," like -- you
9
    know, general topics of --
10
               Do you know whether the documents that
    you received from counsel, that you requested in
11
12
    those categories you've mentioned, were also
13
    available in the Minnesota depository?
14
          A Did I receive something that wasn't in
15 the Minnesota depository?
16
          Q Right; if you know.
17
               I don't know.
          Α
          Q Do you ever go on the Internet and do
18
19
    your own search of any tobacco company documents?
          A No.
20
21
                Have you spoken to any other defense
22
    experts in the National Asbestos Workers case?
0339
                You mean, as a -- on the substance of the
1
 2
     case?
 3
          0
                Yes.
 4
          Α
                No.
 5
                Have you completed your work on arriving
          0
 6
    at your conclusions in the National Asbestos Workers
 7
 8
          A
              Well -- yes. I'm continuing to work on
```

```
9
     other cases. So we're continuing to work on -- as I
     said to Mr. Angland, we continue to -- I think we've
10
     got pretty much all \operatorname{\mathsf{--}} we find something now and
11
12
     then -- on getting more of the early history of
     the -- you know, the first 20 years or so, the
13
14
     history in the U.S., we still find -- things pop up.
                 And -- and on international matters --
15
16
     although we pretty much exhausted that, we think --
17
    but we're -- we're still exploring.
18
                 And, as I said, and also looking at
19
     developments, recent developments, given the changes
     in the industry, both regulatory and then the
20
     companies' positions.
21
                You talked about, probably earlier this
22
0340
1
     afternoon, the process in the actual drafting of the
     report in the Blue Cross/Blue Shield case.
2
3
                 Would the same comments you made apply to
    the report as it was prepared in the National
 4
 5
     Asbestos Workers case, as far as you did the drafting
     and so forth? Or was it different?
 6
 7
                It was similar.
                 By the -- by the time we got the Blue
8
9
    Cross case, I had written six or seven reports
10
     already, including -- National Asbestos Workers was
11
    the first major report written, if I remember right,
12
     since the Ohio testimony.
                 So that was a -- a -- a more significant
13
    thing, in the sense that it was to incorporate a lot
14
15
    of what had been developed in Ohio, since we had done
     a lot in Ohio and, after, did a lot of research on
16
     international and other countries and on -- more on
17
18
     the early history in the U.S.
19
                 And so, that was -- it was more -- in a
     sense, we had more new snuff, in a way, by the time
20
    we wrote that report than we did by the time of the
21
22
    Blue, in terms of background information.
0341
1
                 So does that mean that you participated
 2
    more in the drafting of the National Asbestos Workers
 3
                 I'm saying that the report, if you --
 4
 5
     the report was -- it was, in some sense, less a --
     less a assembly of \ensuremath{\text{--}} of some of the material from
 6
 7
     past reports than it was by the time we got to Blue
 8
    Cross.
9
                Did you ever receive a -- a research
         O
10
     grant from the counsel for tobacco research?
11
          A
                No.
12
                 What about Tobacco Institute, have you
13
     ever received a research grant them?
14
          A No.
15
                      MR. MINTZER: I don't have anything
16
     else.
17
                      MR. ANGLAND: Nothing further.
18
                      VIDEOGRAPHER: Off the record at
     4:33. End of Tape No. 3.
19
20
     (Whereupon, signature not having been waived, the
     taking of the deposition concluded at 4:33 p.m.)
21
22
0342
```

```
ACKNOWLEDGMENT OF DEPONENT
 2
          I, David T. Scheffman, Ph.D., do hereby
     acknowledge I have read and examined the foregoing
 3
     pages of testimony, and the same is a true, correct,
     and complete transcription of the testimony given by
 4
     me, and any changes and/or corrections, if any,
     appear in the attached errata sheet signed by me.
 5
 6
     Date
                               David T. Scheffman, Ph.D.
 7
 8
 9
10
11
12
13
14
15
16
17
18
19
20
21
22
0343
                 CERTIFICATE OF NOTARY PUBLIC
1
 2
                  I, Susan D. Ashe, the officer before
 3
     whom the foregoing deposition was taken, do hereby
 4
     certify that the witness whose testimony appears in
     the foregoing deposition was duly sworn by me; that
 5
 6
     the testimony of said witness was taken by me in
 7
     stenotype and thereafter reduced to typewriting
    under my direction; that said deposition is a true
8
9
    record of the testimony given by said witness; that
     I am neither counsel for, related to, nor employed
10
    by any of the parties to the action in which this
11
    deposition was taken; and further, that I am not a
12
13
    relative or employee of any attorney or counsel
14
     employed by the parties hereto, nor financially or
15
     otherwise interested in the outcome of the action.
16
17
                             Notary Public in and for the
18
                             District of Columbia
19
    My commission expires:
    May 31, 2001
20
21
```